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VIDEOTAPE SELF-CONFRONTATION IN
HUMAN RELATIONS TRAINING

BY

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A THESIS

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The undersigned certify that they have read, and
recommend to the Faculty of Graduate Studies for acceptance,
a thesis entitled VIDEOTAPE SELF-CONFRONTATION IN HUMAN
RELATIONS TRAINING submitted by Roger Duane Martin in
partial fulfilment of the requirements for the degree of
Doctor of Philosophy.

ABSTRACT

Rogers (1967b) has stated that informational feedback about the self is an essential feature in the achievement of human relations training goals. In an attempt to verify this proposition, feedback in the form of videotape self-confrontation was introduced to human relations training groups (T-groups) and relevant variables were studied.

The members of three T-groups, each group composed of a leader and seven volunteer subjects from an adult upgrading institution, participated in 10 sessions of group experience. All sessions were videotaped and self-confrontation through videotape playback was provided after the fifth session.

Dependent variables were obtained at repeated points during the study and included measures of quantity and frequency of verbal output, verbal content, and interpersonal perception. The study was conducted as a time-series research design and the Glass-Maguire (1968) time-series analysis was employed to determine if either level or slope of the trend variables changed as a function of videotape self-confrontation.

Some hypothesized changes occurred at an accepted level of statistical significance but these findings were not sufficiently numerous or consistent to be meaningful.

The results were interpreted as indicating that videotape self-confrontation, in the form utilized in this study, has little value as a change agent in human relations training. Possible explanations are presented for these results and suggestions are made for future research.

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CHAPTER I

INTRODUCTION TO THE STUDY

Man no longer lives in isolation from his fellow men but rather functions increasingly as a social being.

Bradford (1961) argues that the social and technological complexity of our present world makes cooperation among interdependent people mandatory. Smith (1966) compares the present situation with less complicated times.

Our cave-dwelling and club-wielding ancestors saw few people and had simple human relations problems. We, on the other hand, are becoming part of a complex world society of billions. More and more we spend our days with others and with the problems created by being with others (p. 3).

Persons who do not or can not function effectively in interpersonal relationships are placed in a stressful, disadvantaged position (Schein and Bennis, 1965). The helping professions are directing more and more attention to group methods, not only for amelioration of specific psychopathology, but also in counteracting such interpersonal inadequacy and in expanding the potential of "normally functioning" individuals. Human relations training is a general expression which describes group approaches for the personal development of essentially healthy persons.

Human Relations Training

Problems of nomenclature. The area of human relations training presents problems of definition and description

due to a phenomenal growth in both number and types of programs made available in recent years. Human relations training may fall under the varied rubrics of Laboratory Method (Bradford, Gibb, and Benne, 1964), Group Processes (Luft, 1963), Sensitivity Training (Smith, 1966), Basic Encounter Groups (Rogers, 1967b), Actualization Groups (Shostrom, 1969), or the Human Potential Movement (Howard, 1968).

There may be differences among these various approaches. For example, Laboratory Method generally refers to groups which place emphasis on leadership and communication skills, and organizational concerns. Such groups are exemplified by the programs of the NTL Institute for Applied Behavioral Science (1969). In contrast, Encounter Groups and Actualization Groups are part of the larger Human Potential Movement which tends to focus upon emotional expression and personal development (Schutz, 1967). Encounter Groups have received considerable public attention through popular books such as Gunther's (1968) work on sensory relaxation and Sohl's (1967) novel about a weekend encounter marathon.

In addition to possible differences among various group approaches, there are also differences within each orientation. Goals and procedures may vary considerably depending on such factors as delegate population, length of contact, setting, sponsor, and group leader or trainer.

Rogers believes that a commonality exists within this

apparent diversity of approaches. "To me it seems that they do belong together and can all be classed as focusing on the intensive group experience" (1967b, p. 262). In an extensive review of the literature, Campbell and Dunnette (1968) concur with Rogers and propose that the central feature common to most programs is the T-group or training group.

It is acknowledged at the outset that no single explicitly defined set of experiences can be labeled the laboratory method. There are many variations or "training designs," depending upon the characteristics of certain parameters. However, at the heart of most efforts is a common core of experience known as the T group, usually regarded as the crucial part of the program (p. 74).

Separate authors use particular terms to designate the T-group. For the remainder of this paper the three common labels for the intensive group experience--Encounter Group, Sensitivity Training Group, and T-group--are used interchangeably.

T-group definition. The present study focused on the T-group as a situation conducive to group behavior change. Smith (1966) provides a brief description of the T-group.

A T group starts as an unstructured group in which individuals participate as learners. The content of the training is the behavior of the members of the group as they struggle to create a miniature society within their group and to support one another's learning within that society. Each member learns about his own motives, feelings, and strategies in dealing with other persons; of the reactions he produces in others as he interacts with them; and to understand others as individuals and as cooperative members of a group (p. 198).

The T-group leader does not function as a typical discussion leader but rather helps the group to express their feelings, accept and understand one another, and use their experience for learning.

T-group goals. T-group objectives continue to change over the years. A comparison of T-group goals as outlined by Thelen (1954), Bennis (1964), and the NTL Institute for Applied Behavioral Science (1969) indicates marked variation. For the purpose of this study, the following broad categories would seem to represent the major goals of the T-group experience.

1. The T-group attempts to increase the individual's awareness of himself; the goal is for each member to explore and know himself more fully and accurately so that his self-perception and his actual behavior are more similar, and for each member to be more open and sensitive to reactions within his self.

2. The T-group further attempts to provide group members with the opportunity to increase their awareness of, and sensitivity to, the feelings and behaviors of others. This goal implies increased attention to the actual behavior of others.

3. Finally, the T-group attempts to influence participants in the direction of becoming more spontaneous, open, and authentic in their interpersonal reactions; more capable of acting in a collaborative and interdependent manner; and

more able to recognize and use their potential for constructive, creative, complete living.

Videotape Self-Confrontation

Behavioral scientists in general, and group workers in particular, are continually experimenting with dynamic and creative approaches in an effort to more effectively and productively improve human functioning. One of the most recent innovations in the rapidly expanding field of group approaches in the behavioral sciences is the use of videotape recording and playback for the purpose of individual and group self-confrontation or feedback.

A detailed description of the videotape procedure used in this study is provided in Chapter III but the method may be summarized as follows: videotape equipment is arranged to obtain a videotape recording (VTR) of actual, on-going group interaction. At some convenient point in time, a portion of this recording is replayed to the group participants. Thus, group members receive audio-visual feedback concerning the behavior of themselves and others.

Informational feedback is a common interpersonal phenomena but feedback of the self-image is a unique experience. This experience of being faced with one's own image and behavior will be termed self-confrontation for the remainder of the paper. The term originated with Nielsen (1963).

Outline of the Study

The present study focused on the specific application of videotape self-confrontation to conventional human relations training groups (T-groups) in an attempt to assess the effectiveness of the technique.

The study was conducted as a time-series experiment with three independent groups. Each group participated in 10 sessions of group experience. All sessions were recorded on videotape and self-confrontation through VTR feedback was provided after the fifth session.

Dependent variables included measures of quantity and frequency of verbal behavior, verbal content, and interpersonal perception. These variables were analyzed with the Glass-Maguire (1968) time-series analysis to determine if introduction of the videotape feedback variable caused significant change in either level or slope of the series in terms of the dependent variables.

Importance of the Study

Although videotape self-confrontation is in its early infancy as a technique of the behavioral sciences, several articles have made subjective statements as to the extreme effectiveness of this method in behavior modification.

Videotape self-confrontation may indeed be as powerful as claimed and may herald a major revolution in human behavior modification. But conversely, subjective pro-videotape reports may merely reflect a growing mass-

mesmerization and preoccupation with technical gadgetry and a susceptibility to over-enthusiastic promotion (Wilmer, 1968). The videotape technique merits immediate assessment, not by subjective evaluation but by controlled research.

This study also serves to fill a void in the area of human relations training research. The comprehensive reviews of Stock (1964), and Campbell and Dunnette (1968) indicate that little or no process research has been conducted with T-groups to date.

CHAPTER II

THEORETICAL BACKGROUND AND REVIEW OF THE LITERATURE

THEORETICAL BACKGROUND

An Overview

This chapter describes Rogers' self theory as it is applied to the intensive group experience or T-group of human relations training. The attributes of positive personal growth are discussed and the achievement of such growth is held to be a function, at least in part, of informational feedback.

The chapter then presents a review of research on one form of feedback, that is, self-confrontation. A critical evaluation of the research cited precedes a statement of the problem and presentation of hypotheses.

Rogers' Self Theory

There are several theoretical positions which are appropriate for group work. Among these are Gestalt principles (Perls, Hefferline, and Goodman, 1951), Humanistic Psychology (Bugental, 1967), social interaction approaches (Sullivan, 1953; Berne, 1966), and self theory (Rogers, 1951, 1961). Rogerian self theory appears particularly applicable as a basis for the current study which deals

with confrontation of the self. Following is an explanation of Rogerian self theory as it relates to human relations training and feedback processes.

Basic concepts. According to Rogers (1967b, p. 263), self theories have been most prominent as conceptual frameworks for the overall human relations training movement.

Self theory as proposed by Rogers states that behavior is a function of the way in which people perceive their environment and themselves in relation to that environment. People live in a continually changing world of experience in which they are the central figure and where their perception is, for them, reality. A portion of this perceptual field becomes differentiated as the self and the individual constantly strives to maintain and enhance that self.

As experiences and external feedback occur in the life of the individual, they are accepted into the field of awareness if they are consistent with the self or self-structure, ignored if they are not held relevant, and denied or distorted if they are inconsistent with the self-structure. Any experience which is perceived as a threat causes the self-structure to become rigid as a protection.

The fully functioning person. Weschler, Massarik, and Tannenbaum (1962) feel that the constant push of a highly competitive social and vocational environment in our present society has led to extreme rigidity of the self-structure in many people and to an unnecessary degree of perceptual dis-

tortion, denial, and selectivity. These authors suggest that even though we may wish to obtain a clear and honest picture of ourselves, including weaknesses and faults, we are led by the "culture game" to maintain the appropriate front.

The basic assumption is that if we are to appear normal, we must be careful to permit no outward signs of doubt about our state of psychological well-being. In the extreme, we wind up as caricatures of "hail-fellows-well-met". If we have doubts about our own adequacy, it is better to swallow them. We are cautious not to give too much of ourselves; to do so might let signs of discomfort and self-doubt slip into general view (p. 40).

Rogers would contend that these coping or adjustive behaviors of perceptual distortion, denial, and selectivity detract from the full functioning or realization of total potential of the individual. In a review of self theory, Patterson (1966) describes Rogers' concept of the fully functioning person as a person who is "open to his experience, with no defensiveness, and with all experiences available to awareness and symbolized as accurately as the experiential data will permit" (p. 414).

Achievement of positive growth. Rogers believes that the T-group experience can produce positive growth in the individual in the direction of becoming a more fully functioning person.

In an intensive group, with much freedom and little structure, the individual will gradually feel safe enough to drop some of his defenses and facades; he will relate more directly on a feeling basis with other members of the group; he will come to understand

himself and his relationship to others more accurately; and he will subsequently relate more effectively to others (Rogers, 1967b, p. 262).

The stimulus for this "significant new experience of self-understanding" (p. 269) is considered to be, at least in part, the feedback that an individual receives in the group. Rogers states that "In the process of this freely expressive interaction, the individual rapidly acquires a great deal of data as to how he appears to others" (p. 269).

Other writers have also discussed the need for adequate informational feedback as a stimulus to behavior change in group situations.

The feedback processes . . . destroy old balances and accommodations among affects, cognitions, and behaviors and generate pressures to construct new ones along consensually validated lines (Lakin and Carson, 1966, p. 33).

By increasingly comparing their own perceptions of themselves with the feedback they receive from others they tend to move toward heightened personal congruence, toward matching experiences with awareness. In the process, the need for much defensiveness is reduced or eliminated (Weschler *et al*, 1962, p. 43).

The most common type of feedback within a group is verbal feedback among group members. Such feedback is necessary and will probably occur in any group but other types of feedback also exist. This study deals with feedback of the self-image or of material that originates with the self. As indicated previously, such feedback is termed self-confrontation.

In summary, Rogers relates his self theory to the achievement of personal growth and the development of

potential; he further describes the T-group as a situation which attempts to aid such growth and development. Rogers suggests that informational feedback is a major variable in the achievement of positive growth. Assuming Rogers is correct, it would be logical to expect that increased feedback, especially of specific information about the self, as is presented through videotape self-confrontation, would facilitate the achievement of T-group goals.

The following section reviews research which has attempted to study the effects of informational feedback about the self on several variables.

REVIEW OF THE LITERATURE

T-groups and Therapy Groups

The research literature on self-confrontation in general, and on videotape feedback in particular, contains minimal reference to human relations training. To date, nearly all videotape research has been conducted with the treatment aspect of group psychotherapy or the training of psychotherapists.

Concise and clear comparisons between T-groups and therapy groups have been provided by Burke and Bennis (1961b, p. 165), Frank (1964), Garwood (1967), Luft (1963, p. 42), and Miles (1962). These recognized authorities agree that the two activities are not identical but that there are sufficient similarities between T-groups and

therapy groups to suggest that much of the research in psychotherapy would apply as well to the area of human relations training. Indeed, Coffey (1966, p. 648) has described T-groups as "quasi-therapeutic groups" and Weschler et al (1962) conclude emphatically that,

By now it should be quite clear that major similarities exist between . . . sensitivity training and some forms of group psychotherapy. The rather distinct differences between training and therapy to which Jerome D. Frank was able to point a few years ago appear to be becoming more and more blurred (p. 44).

Drawing upon the conclusions of the writers cited above, this study makes the assumption that T-groups and therapy groups bear sufficient resemblance to enable reciprocal generalizations and conclusions regarding videotape research with either behavioral approach.

Early Studies of Self-Confrontation

Most learning situations, if they are to prove successful, require that the learner receive some type of informational feedback (Skinner, 1953). Self-confrontation may be regarded as simply one form of informational feedback.

Self-confrontation may be in the form of written transcripts, audio recordings, photographs, motion pictures, or videotape replays. Prior to the introduction of audio-visual techniques of self-confrontation, Pinney (1955, 1963) employed feedback through written transcripts of an individual's verbalizations during psychotherapy, and researchers such as Philip and Peixotto (1959) and Armstrong (1964)

confronted individuals with tape recordings of their verbal behavior. Written and audio feedback were found to have only limited application however and Stoller (1968a, p. 207) charges that the procedures failed to develop in any meaningful way.

Research in visual feedback originated with the film confrontation of alcoholics in France. Carrere (1954, 1955, 1958) produced films of alcoholics while they were undergoing delirium tremens. The films were then shown to the patients after they had recovered from the acute stage of the attack. In this manner Carrere hoped to break through the alcoholic's resistance to reality and to present him with a true image of his illness. Carrere presented 65 clinical cases wherein 38 subjects either quite drinking completely or were judged to have greatly improved as a result of the self-confrontation.

Visual self-confrontation through playback of recorded behavior was introduced to North America through an extensive study by Nielsen during 1956-1958. Nielsen (1963, 1964) presented college students with self-confrontations of filmed stress-provoking interviews. The primary purpose of the study was to obtain retrospective data from the subjects but it was discovered that the self-confrontation aroused strong self-reactions in many students. Nielsen outlined some of the results and pointed to further uses of the technique when he said,

the self-confrontation created a unique responsiveness in the subjects in regard to their self-image, a willingness to associate with it, and a particular interest in understanding themselves. One might guess, therefore, that the method of self-confrontation could even have some therapeutic value . . . (1964, p. 10).

Nielsen further commented on the tremendous power of the technique.

Some of the subjects were curious as to the nature of their inner self; others were frightened by the intense self-awareness and found it quite painful. The confrontation with the self-image left none of them neutral or untouched (p. 40).

Cornelison and Arsenian (1960) confronted a small group of hospitalized psychotics with both still photographs and movies of themselves. The authors felt that it was important to attempt to understand the self but that the mental patient "may require mobilization to recognize the need to reappraise himself" (p. 1). No empirical data were collected and the authors' only conclusion was that once mobilized, patient reactions varied from "psychic shock" to "emotional catharsis".

Videotape Self-Confrontation

Videotape in psychotherapy. The production of inexpensive videotape equipment in the 1960's made possible new approaches to research on self-confrontation. Cornelison and Tausig (1964) videotaped short psychiatric interviews and replayed these to the patients involved. Patients were questioned about the perceived self-image and the videotape procedure was "repeated several times for each patient, at

intervals varying from 2 to 15 days" (p. 229). The authors presented no population data or research outcomes although some data were apparently collected.

Moore, Chernell, and West (1965) recorded short, structured interviews with 80 psychiatric patients of varying diagnosis. Of these 80 patients, 40 served as the experimental group and viewed the videotaped interviews. The control group received no replays. The dependent variable was degree of improvement as judged independently by resident psychiatrists. With three criterion categories of cured or maximally improved, moderately improved, and minimally improved or unchanged, the experimental (view) group showed significantly greater improvement than did the control (nonview) group at discharge. Although this study was much more rigorously designed than the Cornelison and Tausig study, the criterion measures leave much to be desired and the authors admit that it was not always possible to prevent the judges from knowing to which condition, experimental or control, a specific patient belonged.

The playback technique was extended to focus attention on the responses of both interviewer and interviewee in what Kagan and his associates (1963, 1967) and Woody and his associates (1965) term "Interpersonal Process Recall" (IPR). Immediately following a therapeutic dyad, both participants view the playback in separate rooms and are encouraged by "interrogators" to recall and examine any

significant feelings and behaviors as they relive the experience. No research data were provided; rather, the authors present illustrative case studies and their own clinical impressions as to the utility of the technique. Their observations add nothing to the few results reported by others.

Geertsma and Reivich (1965) were the first research team to conduct a VTR of an actual series of therapy sessions. They reported significant improvement over a period of 14 weekly sessions with a single narcissistic and defensive subject who had not improved or experienced relief with other therapy approaches. The criterion was rating of improvement by external judges, in this case student nurses.

In a well-designed study, Boyd and Sisney (1967) chose Leary's Interpersonal Check List (ICL) to measure changes in self-concept and concepts of interpersonal behavior contingent upon videotape self-confrontation. An experimental group ($N = 7$) observed the VTR replay of a standardized 10-minute interview covering the subject's reactions and feelings about himself, his family, and other patients. A control group was similarly interviewed and videotaped but was shown a neutral 10-minute cut from a commercial television comedy. The Leary ICL was administered to both groups before, immediately following, and two weeks after the VTR experience. Results were that Ss in the experimental group displayed a greater decrease in pathology

level (as defined by Leary) and a greater increase in congruence between their real, ideal, and public selves, than did members of the control group. These results remained stable at the re-test two weeks later.

Several recent articles have attempted to describe and classify the reactions of various individuals and groups to the videotape feedback experience. These practical descriptions offer no research support to the technique but serve to suggest possible avenues for future investigation.

Alger and Hogan (1966a, 1966b, 1968) have employed videotape feedback in private psychiatric practice since 1965. They apply the technique to conjoint marital therapy and describe it as being primarily for "clarifying multiple and contradictory channels of communication" (1967, p. 1429). Their focus is on double-bind problems of communication where a person presents two incongruent messages simultaneously, on different levels. Alger and Hogan admit that in terms of research they have presented only clinical observations but their work has had considerable influence on the spread of videotape adoption, particularly in the medical field.

Berger, Sherman, and Westlake (1968) used videotape feedback in a mental health clinic setting. Their subjective impression was that videotape self-confrontation of psychotherapy groups enhanced "group cohesiveness, mutuality, intimacy, and caring, as well as the letting go of resistive,

distancing maneuvers" (p. 514).

A comprehensive description of videotape methodology was presented by Czajkoski (1968). He worked with a group of five adult prison inmates and claimed that "The mere presence of videotape equipment motivates positive and efficient group performance, and there is apparently an intrinsic therapeutic value to the videotape playback" (p. 523). No empirical evidence was presented.

Pascal, Cottrell, and Baugh (1967) similarly reported on the observed results of videotape feedback to a group of juvenile delinquents. These authors collected no research data and made no claims for the technique, pointing out that their article was merely a short methodological note.

In a series of articles on groups, Stoller (1966, 1968a, 1968b) has presented his technique of "focused feedback whereby he selects those portions of a VTR which he considers best for self-confrontation. One clinical report by Stoller (1967a) described a high degree of therapeutic involvement by poor-prognosis chronic schizophrenics following videotape self-confrontation, and a second report gave a clinical description of the creative uses of the technique with marathon groups (Stoller, 1967b). As with the majority of videotape studies, Stoller presented no research findings but relied upon personal report by subjects.

Training of psychotherapists. The training of

psychiatrists, psychologists, counselors, and other mental health professionals can be considered, at least in part, as training in human relations skills. Several reports in the literature outline the use of videotape replay as a training aid in this area.

Programs involving interview replays to psychiatric residents as part of their total training experience have been described by Benschoter, Eaton, and Smith (1965); Finch and Kemph (1966); Ruhe, Grundle, Laybourne, Forman, and Jacobs (1960); Torkelson and Romano (1967); Wilmer (1967a, 1968); and Yonge (1965).

Videotape feedback has also been employed in the practicum for counseling and clinical psychologists. Details of some of these programs have been provided by Berger and Gallant (1965); Poling (1965, 1968a, 1968b); Ryan (1969); and Walz and Johnston (1963). All of the preceding articles are descriptive in nature and do not involve experimental variables.

Videotape in human relations training. As stated at the outset, little published material exists concerning videotape feedback in the specific area of human relations training. The investigator attended a seminar by Perlmutter which had specific reference to the use of videotape self-confrontation in T-groups and was entitled "The clinical and therapeutic application of videotape". Several personal communications (Perlmutter, 1968) followed this meeting.

Stoller (1967b) has made reference to the use of videotape self-confrontation as part of a larger program of marathon group sessions, and Wilmer (1967b) has described a program employing videotape self-confrontation and sensitivity training in the education of psychiatrists.

Such a paucity of published material indicates the need for further research in this area.

Summary of VTR advantages over verbal feedback. It is accepted that ordinary verbal feedback may be highly effective in producing behavior change in the group setting. But such interpersonal feedback may also alienate a member against the group or the leader, or cause intense resistance to further feedback; occur too late to be of benefit; be biased and inaccurate; simply be ignored or denied by the intended receiver; or not possess the power to be effective.

Proponents of videotape self-confrontation argue that the method overcomes these problems and emerges as a powerful and effective behavioral technique. Following is a detailed examination of each problem with solutions provided through videotape.

1. Ordinary interpersonal feedback may cause a group member to become alienated against the group, or to become hostile and resistive to further contacts. Stoller recognized the problem of judgmental feedback when he said, "it is hard to sit still and listen to information about oneself which may be unpleasant and it is hard to assimilate what is

told in mere words" (1967b, p. 32). Alger and Hogan (1967) feel that videotape self-confrontation presents the individual with an important situation; an objective, neutral view of himself. They suggest that the individual is then more likely to act on the basis of the new insight since he feels he was not forced to change but has arrived at his own deductions and conclusions.

2. Feedback may occur too late. To be effective, feedback should occur close in time to the event in question (Benne, Bradford, and Lippitt, 1964, p. 25). Videotape feedback permits immediate self-confrontation, within the same context as the behavior itself. Stoller has stated that the immediacy of the technique greatly enhances the power of presentation.

3. Subjective feedback is susceptible to bias and inaccuracy. Again, Stoller claims that videotape feedback is "almost unbiased" (1968a, p. 239) and further that,

Insofar as it is his own behavior, recently displayed, an individual seeing himself on videotape is receiving the clearest, least distorted, and most comprehensible feedback possible (p. 210).

4. Feedback may simply be ignored or denied, although this possibility seems remote to Stoller.

The use of videotape presents a possibility for immediate self-viewing and self-evaluation of one's impact on others which is unequalled by any other modality. The urge to look at oneself is apparently an irresistible one and even patients who seemed to have abandoned a considerable amount of their self-esteem cannot turn away from this (1967b, p. 160).

5. Ordinary verbal feedback may not be sufficiently powerful to influence or penetrate rigid self-structures. Stoller (1968a, p. 235) argues that a special presentation, in the form of videotape self-confrontation, is necessary to counteract the general learned insensitivity and biased attitudes that people develop toward their own behavior. People tend to maintain perceptual styles which allow them to see only those aspects of themselves which tend to maintain a level of comfort.

If these various researchers are correct in their assessment of the technique, videotape self-confrontation appears to be a relatively non-threatening, timely, clear, accurate, acceptable, and compelling force. Alger and Hogan (1967) capture the essential features of the technique when they summarize,

The use of the video technique allows the development of greater awareness more rapidly and also enhances the patient's motivation to remember this awareness vividly and often pictorially, and to put the new awareness into practice without the common feeling of coercion (p. 1429).

Critical Evaluation of Cited Research

Perusal of the articles outlined above indicates a minimum of research evidence but an abundance of positive impressions and opinions regarding the benefits and potential of videotape feedback. Such optimism is perhaps unwarranted and unjustified in the light of several recent articles.

Danet (1968a, 1968b), in his doctoral research at the University of Minnesota, found few changes between experimental groups ($N = 7$) receiving 10 minutes of VTR replay at the beginning of weekly therapy sessions, and control groups receiving no feedback. Using a wide range of measures (MMPI, sociometric data, focused interviews, frequency and nature of verbal participation, clinical evaluation), Danet found that the experimental group was less consistent in their behavior than the control group with considerable shifting from chair to chair and a lack of stability in their questionnaire responses from session to session. Experimental subjects also had more negative self-evaluations and were dominated by a few verbal members while the control group rated themselves as more improved and became relatively democratic with greater participation of all group members.

Danet concluded that "introduction of playback as carried out in this study had a disrupting influence on the group's processes" (1968b, p. 254) and further that,

many . . . studies are needed to determine, in controlled fashion and using additional samples of inpatients and outpatients, precisely the ways in which the videotape experience can be most helpful in individual and in group methods of treatment (p. 255).

In response to a recent article by Alger and Hogan (1969), Canter echoes Danet's concern for adequate, controlled research regarding videotape procedures.

Before we proceed much further in the development of the techniques and argue for their widespread adoption,

we need to direct efforts toward the inauguration of more systematic and controlled studies (1969, p. 98).

Statement of the Problem

There is a tendency for individuals in our complex and competitive society to be guarded, defensive, and rigid in regard to their self-structure. Rogers suggests that to be a fully functioning person the individual must rather become more aware of all current stimuli and hence more aware of himself and others, drop defenses which drain off excess energy, and become more open and truly himself in his interactions with others.

T-group goals are similar to Rogers' concept of the fully functioning person. One T-group goal is the achievement of more accurate and complete awareness and understanding of both self and others. Persons interacting in a T-group setting should develop more accurate perceptions of each other in that the group is encouraged to attend to actual behavior rather than to rely upon past experiences, stereotypes, and personal preferences. It follows that if group perceptions of both self and others are more accurate, group members will tend to agree on the perception of any one individual because they will be operating from a common frame of reference--the person's actual, current behavior.

In a similar manner, T-groups seek to focus attention upon immediate feelings and behaviors within the group and thus away from more external or neutral topics. In the

language of the T-group, the focus is on the here-and-now. Discussion of events or feelings which have happened in the past, or to individual members, or to external persons is considered there-and-then. By concentrating on here-and-now topics and interaction, the activities of the group are common to all members and the group maintains its orientation to the most important group ingredient--the group members themselves. Thus, in a successful T-group, the proportion of here-and-now verbal content tends to increase and the proportion of there-and-then verbal content tends to decrease as the group progresses.

The two classifications, here-and-now and there-and-then, are considered separately in that they are mutually exclusive but are not all-inclusive. That is, there are group verbalizations which do not accurately or readily apply to either category.

Schein and Bennis emphasize the importance of the here-and-now focus by stating that,

here-and-now learning is based on experiences which are shared, public, immediate, direct, first-hand, unconceptualized, and self-acknowledged. Compare this with the conventional ways of learning: through experiences which are vicarious, detached, incomplete, sanitary, overly intellectual and protective, frequently imposed by an authority, and often irrelevant. While the here-and-now orientation is not an official monopoly of laboratory training, it is perhaps its main distinguishing feature (1965, p. 39).

Another T-group goal is the establishment of a democratic, cooperative, sharing group atmosphere wherein each member is given an opportunity to participate and is valued

for his personal contribution. This goal suggests that members will come to value equitable verbal participation of all group members as opposed to the frequent group situation wherein a few members dominate the verbal interchange at the expense of submissive members.

Cooperation and sharing cannot occur unless all members participate. In terms of group behavior, achievement of this goal would be indicated by minimal variation in group verbal participation, that is, there would be relatively little variation among group members in regard to their individual verbal output.

Rogers states that feedback is a necessary condition for the achievement of the afore-mentioned goals. He is referring to ordinary interpersonal, verbal feedback but there are indications that videotape feedback or self-confrontation may be a much more powerful and effective stimulus. Videotape self-confrontation is a form of feedback regarding the self-structure. Therefore, introduction of VTR feedback should result in rapid, if not immediate, achievement of the T-group goals related to Rogers' self theory.

Proponents of videotape procedures believe such change to be possible and have vicariously contended that the technique is unparalleled for immediacy, objectivity, and accuracy of informational feedback (Alger and Hogan, 1967); leads to heightened interaction and accelerated group progress

(Czajkoski, 1968); and provides a compelling, powerful, and lasting influence upon human behavior (Stoller, 1968b). Claims of this nature have promoted wide and enthusiastic interest in the technique but the majority of videotape articles provide little substantial research evidence either for or against the method.

In general, the problem is one of scientifically evaluating the effectiveness of the videotape technique of self-confrontation within the framework of Rogerian self theory as it applies to human relations training.

Hypotheses*

In order that the technique of videotape self-confrontation could be evaluated, a number of specific hypotheses were constructed. If videotape self-confrontation of a portion of a group's interaction is introduced into the sequence of an on-going T-group, it is hypothesized that certain changes will immediately take place.

Hypothesis I. The level of variability decreases among group members in regard to the total time that each member speaks during a session. The "talkers" and the "listeners" become "interactive participants", each contributing a more equitable portion of the verbal interaction.

Hypothesis II. The trend or slope of variability decreases among group members in regard to the total time that

*Operational definitions for the various terms employed are presented in Chapter IV and in Appendix F.

each member speaks during a session. In other words, self-confrontation precipitates a lasting tendency toward decreased verbal variability.

Hypothesis III. The level of variability decreases among group members in regard to the number of times each member speaks during a session. Extremes of verbal participation disappear.

Hypothesis IV. The trend or slope of variability decreases among group members in regard to the number of times each member speaks during a session.

Hypothesis V. Level of proportion of topics referring to the here-and-now increases. The group immediately talks more about group members and material within the context of the group.

Hypothesis VI. The trend or slope of the proportion of here-and-now verbal references tends to increase.

Hypothesis VII. Level of topics referring to the there-and-then decreases. Activities, events, and people external to the group are discussed less frequently.

Hypothesis VIII. The trend or slope of proportion of there-and-then verbal references tends to decrease.

Hypothesis IX. There is an increase in congruence between the self-description of any group member and other member's descriptions of that person. That is, the way in which group members describe themselves and the manner in which the group perceives them tend to coincide after

self-confrontation.

Hypothesis X. Variability decreases among group members in regard to descriptions of any single member. Group members tend to agree more in their expressed descriptions of any one member.

CHAPTER III

PROCEDURE OF THE STUDY

Overall Procedure

Groups. The study was conducted with three T-groups, each composed of 8 subjects. Three groups were employed so that results would be less a reflection of particular features of a single, unique group. Procedures and conditions were essentially identical for all three groups.

Sessions. Each T-group met twice a week for a 90-minute period. The groups attended 10 such meetings; this number is generally considered adequate for group change (Schein and Bennis, 1965, p. 76). The research design employed required approximately 30 time periods, hence each session was arbitrarily divided into three 25-minute segments. After the group had been in progress for an initial 25 minutes the technician stopped the recording process and turned up the control room lights. This was a distraction to the group and comprised the first division. A further 25-minute segment was recorded and then the group was served coffee. This procedure was repeated for all 10 sessions producing 28 separate group segments within a period of five weeks. Because of the length of the sessions containing VTR replays, only a single division could be employed, thus 28 rather than 30 segments were accumulated.

Self-confrontation. Videotape recordings were made

of all sessions. Groups received videotape self-confrontation just prior to the sixteenth, the seventeenth, and the eighteenth segments.

Time-series experimental design. A time-series design is a research procedure whereby periodic measurements are taken on some group or individual, an experimental change is introduced into this time series, and the results are indicated by a discontinuity in the measurements recorded in the time series (Campbell and Stanley, 1963, p. 37). A control group is not required for this type of research because the group under study serves as its own control. Therefore, the design is particularly appropriate for group work where it is difficult to adequately match experimental and control groups.

Subjects

Selection procedure. Students at Alberta Vocational Centre (AVC) were approached to serve as volunteers for the group experience. AVC is a government-sponsored educational institution which provides adult students with special educational programs designed specifically for academic upgrading of adults.

Students at AVC tend to have experienced difficulty and frustration in regard to obtaining satisfying and rewarding employment. Their decision to return to school for re-training indicates considerable motivation for self-improvement and suggests that they could benefit from

the T-group experience.

There were a total of 320 students enrolled at AVC. The majority of these students were seen in their home rooms and the research project was briefly explained to them. Interested students received a form (see Appendix A) which summarized the project. This form contained a volunteer slip which the student could complete and submit if interested.

Seventy-five students submitted applications to take part in the study. The three most popular time periods for the sessions were finalized and the fourth choice dropped. Volunteers were contacted by telephone in a random manner and the first 8 volunteers for each time period to agree to attend all 10 sessions were accepted. In addition, a stand-by subject was obtained for each group. All subjects were then sent a personal letter (see Appendix B) outlining procedures for the first meeting and again emphasizing the importance of attendance at all sessions.

Several subjects dropped out, either before or after the first session, leaving each group with seven subjects, exclusive of the group leader, for the duration of the study.

Description of subjects. Table 1 presents basic descriptive information on the three groups. In the remainder of this paper the three T-groups will be designated Group A, Group B, and Group C. As indicated in the table, the groups

varied with regard to age and education.

TABLE 1
DESCRIPTION OF SUBJECTS

	Group A	Group B	Group C
Total number	7	7	7
Male subjects	5	4	5
Female subjects	2	3	2
Age range	18-45	21-47	17-45
Mean age	29.3	36.0	26.1
Education completed	9.4	10.7	9.3

T-group Trainers

Selection. Trainers were chosen from a group of doctoral students studying in the general area of group approaches to behavior modification. Criterion for selection was interest in the project, willingness to participate, and availability.

Description. The three trainers chosen for the study were male graduate students completing the Ph.D. in Counselling Psychology at the University of Alberta. All three trainers had previous experience with groups. They had no knowledge of the hypotheses or specific variables of the study and therefore could be considered impartial participants in the study. Trainers will be designated as

Trainer A, Trainer B, and Trainer C to correspond to the T-group with which they worked.

Trainer A was in his early 40's. He had worked as a school psychologist and had led group counselling sessions but although he had participated in T-groups, this was his first experience as a trainer. Trainer A had a group approach which could be described as relatively non-directive. He interacted with group members but tended to hesitate at initiating interaction. His focus appeared to be more on individual group members than on the total group or on interpersonal concerns.

Trainer B was in his mid 30's. He had experience with individual and group counselling and had led several previous T-groups. His approach was rather directive, although at times he was somewhat passive. He interacted on a very personal, warm, and sharing level with the group and could be highly supportive of group members. Trainer B, much more than either of the other two trainers, encouraged group interpersonal feedback and participation.

Trainer C was in his early 40's. He had experience with individual and group counselling and had led previous T-groups. This trainer tended to keep himself apart from the group and favoured analysing, summarizing, suggesting, and interpreting group events. He seemed to become more personally involved and sharing as the group progressed.

Treatment Procedures and Facilities

Instructions provided to trainers. The three group trainers were provided with the Manual for Human Relations Training (see Appendix C) and instruction on several techniques or procedures basic to nearly all T-groups. These techniques included:

1. creation of an ambiguous, essentially unstructured group environment. The absence of familiar structure and expectations serves to disrupt previously established patterns of interpersonal behavior and thus increases the possibility of the occurrence of new meaningful learning.
2. provision of an accepting, nonjudgmental atmosphere of trust and freedom. This supportive climate of free expression makes it possible for individuals to experiment with new behavior and initiate provisional movements without the fear that failure will lead to censure, criticism, or rejection.
3. encouragement of interpersonal feedback. As stated previously, feedback is one of the basic determinants of change in the group situation. Usual feedback in groups consists of the providing of verbal and non-verbal responses by others to a unit of member behavior. Initially, most feedback will originate with the group trainer but as the desirable group climate of psychological safety develops, group members will begin to inform each other as to how their behavior is perceived and interpreted.

Feedback serves to eliminate distorted perceptions and so allows the group to function on a very open, accurate, and productive level of interpersonal communication. In this instance, videotape self-confrontation provides additional and unique feedback experience.

4. emphasis on the here-and-now. T-group interaction is focused on behavior emitted within the group; on behavior characterized by current, on-going feelings and experiences. Thus, learning is based on actual experienced events.

Videotape facilities and equipment. Group sessions were conducted in the television studio of the Department of Radio and Television Arts of the Northern Alberta Institute of Technology. This setting provided the appropriate lighting and acoustical requirements for successful recording.

An excellent outline of basic video technology and equipment specifications appears in Angus (1967) and Codling (1966a, 1966b, 1967). The recording equipment employed in this study included a Sony 1-inch videotape recorder (model EV-200) and a Packard-Bell (model DX 920) television camera. The camera was equipped with a Canon C-16 (13mm) wide angle lens and a Canon 4 x 1 manual zoom lens was also used.

A 5-inch Sony micro video monitor (model PVJ - 3030) was mounted directly on the camera and the camera was fixed to a Samson mobile camera tripod (model 301). Recordings were made on 60-minute Sony polyester videotape reels (model V - 11 - 60; 25 microns).

Sound recording was achieved with Electro-Voice dynamic lavalier (neck) microphones (model 647A, high impedance) for each group member. These microphones were connected to Philips pre-amplifiers (model EL 6415) with individual volume controls. This latter feature made it possible to adjust for individual differences in voice level.

An Eico sound amplifier (model HF - 12) provided sound monitoring in the control room. Video monitoring

depended on a 12-inch General Electric closed circuit television receiver. Group playback and self-confrontation was through a Conrac 21-inch (model CYB) studio monitor.

Videotape recording procedures. Before the first group session began, participants were asked to sign a consent form indicating agreement to being videotaped. Appendix D contains a copy of this form. The consent form stated that members would have an opportunity to see some of the videotapes and that all tapes would be erased at the completion of the project.

Group members were seated in comfortable chairs arranged in the form of a horseshoe with the camera directed into the open end of the horseshoe. When equipped with the wide angle lens, the camera was able to cover the entire group from a distance of approximately 20 feet.

Complete control, adjustment, and monitoring facilities were contained in a control room, separated from the main studio by large glass windows. Control personnel adjusted individual microphone levels, monitored general audio and visual recording levels, prepared the videotapes, and timed the sessions.

As soon as a group had entered the studio, seated themselves, and adjusted their lavalier microphones, a technician started the videotape recorder. At the end of 25 minutes, the technician signalled the group trainer by turning up the control room lights, recorded a blank section

on the tape, signalled the group trainer by turning down the control room lights, and began recording again. The break was the group's momentary attention to the control room.

At the end of a further 25 minutes, coffee was served to the group. After coffee, a final 25-minute segment was recorded. The technician again turned up the studio lights and the trainer ended the session as soon as this was convenient for the group.

The above procedure applied only to those sessions not destined for replay. For the fifth and sixth sessions, the camera was equipped with a zoom lens and the researcher operated this lens to achieve maximum impact of recording for replay. No set pattern of recording was followed; the investigator selected those shots which he considered important for self-confrontation and maximum personal learning. The focus included close-ups of facial expression while group members were both talking and listening; close-ups of repetitive behavior such as knuckle-pulling, finger-tapping, and foot-movement; and overall group shots illustrative of both group cohesiveness and attention, and group splits, pairing, and lack of interest or lack of attention.

Playback technique. As indicated in the project schedule (see Appendix E), a group met for five sessions (15 segments) before seeing any videotape replay. Then, just prior to the sixteenth segment, the group's attention

was directed to a 21-inch playback monitor and a 10-minute section of VTR (randomly selected from the previous segment) was shown to the group. Participants observed the entire 10-minute section without interruption but were free to talk about the replay as they watched it.

A regular 25-minute segment of group interaction followed this first videotape self-confrontation. The group then observed a second videotape self-confrontation (again randomly selected) from this just-completed segment of group interaction.

The procedure was repeated a third time so that the group experienced three videotape self-confrontations between regular periods of group interaction.

CHAPTER IV

COLLECTION AND TREATMENT OF DATA

Dependent Variables

Several variables were selected to evaluate the various effects of the videotape stimuli. As outlined in Chapter III, these variables were selected in relation to common T-group goals. As well, an attempt was made to include as many totally objective variables as possible. Research data covered three general areas (verbal output, verbal content, and interpersonal perception), with two dependent variables in each area. The dependent variables were:

1. objective measures of verbal quantity for group members (ie. how much each person spoke);
2. objective measures of verbal frequency for group members (ie. how often each person spoke);
3. proportion of here-and-now verbal content references to the total number of verbal references;
4. proportion of there-and-then verbal content references to the total number of verbal references. This variable is not the compliment of #3 because there were three other references contributing to the total. Thus, change in one of #3 or #4 was not necessarily reflected in the other.
5. agreement (expressed in terms of correlation)

between group members' self-perceptions and perceptions of them by other group members;

6. total group agreement or consensus (expressed in terms of correlation) regarding perception of any single group member.

Data Collection

As previously mentioned, each 90-minute session was subjected to a fixed tripartition and each resulting division treated as a separate session. Verbal output and verbal content variables were calculated for each of the 28 separate observations created by this manipulation.

Verbal output. Verbal quantity and verbal frequency measures were taken from videotape samples as analysis of the complete tapes would have proven unwieldy. Random numbers were used in conjunction with tape footage figures to draw eight one-minute samples from each 25-minute segment. The investigator and two assistants then viewed these samples and recorded verbal utterances by operating push-buttons attached to a multi-channel events recorder.

Each time a person was observed to speak, or when a silence occurred, the appropriate button was depressed causing a specific recorder pen to deflect. When a person stopped speaking (or when a silence was broken) the button was released and the recorder pen returned to its resting place. This procedure provided an objective and highly accurate graphical record of group verbal output.

A fixed tape speed of 1/10 inch per second on the events recorder enabled a direct count of quantity and frequency of speech for each group member. The total time that a person spoke during a segment was the cumulation (in tenths of inches) of the length of lines on the tape corresponding to that person; the number of times that a person spoke during a segment was the number of separate lines corresponding to that person.

Final measures for these two variables were variances ($S^2 = N \sum x^2 - (\sum x)^2 / N^2$) calculated for all group members during any one segment. Thus there were 28 measures of group variance of verbal quantity (total time variance) and 28 measures of group variance of verbal frequency (frequency variance) for each of the three T-groups.

Verbal content. Content analysis was achieved by examination of typescripts (taken from audio tapes of the videotapes) of the previously-described one-minute samples. The scoring unit (Berelson, 1954) was total action for a speaker from the time he started to speak until someone else spoke or a silence of some length occurred.

Content categories were chosen to be representational as outlined by Osgood (1959, p. 39). This meant that the categories depended upon the lexical meaning of individual words rather than upon implied or inferred meaning.

Budd and Donohew's (1967, p. 44) guidelines for category development were employed to arrive at five

categories which were designed specifically in terms of T-group goals, were exhaustive and mutually exclusive, and were explicitly defined. The content categories were defined as follows:

1. Here-and-now. Topics relating to anything (past, present, or future) within the group; discussions of group members, interactions, and feelings; discussion of what this group did in previous sessions; any present tense or group-inclusive self-verbalizations; statements of agreement with other group members.

Examples: "We all were I think", "I feel angry", "That's what you said last day", "Okay Peter".

2. There-and-then. Any past tense reference to things outside the group (ie. not involving group members). References to places, events, people, things, and actions not in any way connected with the group (although the speaker himself may have been involved).

Examples: "The idea is impractical", "That's what I liked about living there".

3. Here-and-now/there-and-then. References which contain both categories described above with a here-and-now reference preceding a there-and-then reference.

Examples: "I agree with you John, but back in Ontario the people were different", "You think we are but history has shown that . . .".

4. There-and-then/here-and-now. References which include a there-and-then reference followed by a here-and-now reference.

Examples: "Farming was always a gamble, but then you don't really care to hear that do you?", "I parked where he told me and I just about didn't make it here to our session tonight".

5. Unclassifiable. All material not applicable to the first two categories, or their combinations; references not clear, no topic or noun, neutral statements with no real meaning, quotations.

Examples: "What uh . . .", "And I don't know", "Well . . .".

Much more extensive and complete definitions and examples are provided in the Judges' Manual (see Appendix F).

Three impartial judges were selected to rate verbal typescripts; all three had previous experience with rating tasks. Each judge was provided with the comprehensive and detailed manual cited above. The manual outlined both specific and general category descriptions and gave numerous examples. A training session was conducted in which the judges discussed the various category definitions and examples and resolved any problems of semantics and/or interpretation. They then completed an initial trial rating of 40 scoring units. Any discrepancies between the investigator's rating of an item (criterion measure) and a judge's rating were examined and problem areas clarified.

At this point, the judges took home a trial set of 215 scoring units and consulted the manual to rate each. The final typescripts were not circulated until reliability was ascertained for this trial. Table 2 indicates the interjudge and judge-investigator reliabilities expressed as percentages of agreement.

The scoring proved a relatively easy task because the three judges reached total agreement on 69 per cent of the items. These reliability figures were considered sufficiently high to continue with the actual rating. Each judge was given a volume containing one-third of the typescripts to be

TABLE 2

INITIAL INTERJUDGE RELIABILITY
FOR CONTENT ANALYSIS STATED
AS PERCENTAGE OF AGREEMENT

Rater	Judge 2	Judge 3	Investigator (criterion)
Judge 1	.79	.77	86
Judge 2		.81	.92
Judge 3			85

rated. All identifying data were removed from these 224 pages of typescript with only a code number appearing on each page. Interspersed throughout the volumes, and common to all three judges, were an additional 182 randomly chosen scoring units which served as spot checks on interjudge reliability. These items were checked as scoring progressed to assure that the initial rate of reliability was being maintained. Table 3 presents the percentages of agreement for this reliability spot check. Reliability improved with judges reaching total agreement on 77 per cent of the items at this time.

Interpersonal perception. Self descriptions and descriptions of other group members were obtained at four equally-spaced points in time during the study. The instrument employed for this purpose was the Group Semantic Differential (GSD) designed by Burke and Bennis (1961a, 1961b).

TABLE 3

SPOT CHECK INTERJUDGE RELIABILITY
FOR CONTENT ANALYSIS STATED
AS PERCENTAGE OF AGREEMENT

Rater	Judge 2	Judge 3
Judge 1	.84	.84
Judge 2		.83

The Group Semantic Differential instruction sheet and adjective sheet appear in Appendix G. Burke and Bennis used several sources to collect bi-polar scales relevant to group functioning. Items were drawn from Osgood's factors of semantic meaning (evaluation, potency, activity), Schutz's group dimensions (inclusion, control, and affection), and Carter's group factors (individual prominence, group goal facilitation, group sociability). Sample scales are "leads-follows", "friendly-unfriendly", and "talkative-silent". A total of 19 such bi-polar scales were selected and factor analyzed to produce three distinct factors on 18 scales.

The present study used these 18 bi-polar adjectives as a basis for group members to describe both themselves and each other member in their particular group following the sixth, twelfth, seventeenth, and twenty-second segments. Appendix E contains the project schedule and shows the relation of these measures to the total program. The four

GSD measures are subsequently referred to as GSD1, GSD2, GSD3, and GSD4.

Statistical Procedures

Verbal output. The dependent variables of total time variance (verbal quantity) and frequency variance (verbal frequency) were analyzed with the recent integrated moving average model described by Maguire and Glass (1967) and Glass and Maguire (1968). This model and statistical techniques were constructed specifically for time-series designs and are claimed to be "the most suitable methods now available which might have application to the analysis of time-series quasi-experiments" (Maguire and Glass, 1967, p. 743). Maguire and Glass realized the importance of the time-series design and the fact that,

to date, appropriate inferential statistical analyses of treatment effects in all types of time-series experiments have not been developed (Glass and Maguire, 1968, p. 1).

Kerlinger (1964) also warned of the difficulty with time-series analyses, "The statistical analysis of time measures is a special and troublesome problem: the usual tests of significance applied to time measures can yield spurious results" (p. 319).

In an attempt to correct this deficiency, Glass and Maguire reported the extension of the statistical models of Box and Tiao to a general time-series analysis which would determine significance of both change in level and change in slope or drift. Such a statistical analysis is crucial

in time-series designs because, as Campbell and Stanley (1963, p. 38) clearly illustrate (see Figure 1), introduction of a treatment variable may cause 1) no change in the series--slope and level remain constant, 2) significant change in level but no change in slope, 3) significant change in slope but no change in level, or 4) significant change in both level and slope. If significant, meaningful results are to be obtained, it is obvious that both level and slope must be examined because changes may occur in both in a time-series design.

Briefly, the time-series model to analyze changes in both slope and level begins with a number of pre-treatment and post-treatment observations and assumes that this series has a general level or position. The dependent variables are said to fluctuate around this level due to periodic random shocks which act upon the series. A proportion of these random shocks are absorbed into the system and continue to effect the remainder of the series.

The probable distribution of the series can be plotted, taking into account all parameters, and the obtained data compared with this hypothetical model to determine if any significant deviations occur either in slope or level as a result of the treatment variable. The model may be written: pre-treatment (n_1)

$$z_t = L + \gamma_{\mu(t-1)} + \nu + \gamma' + \gamma \sum_{j=1}^{t-1} \alpha_j + \alpha_t$$

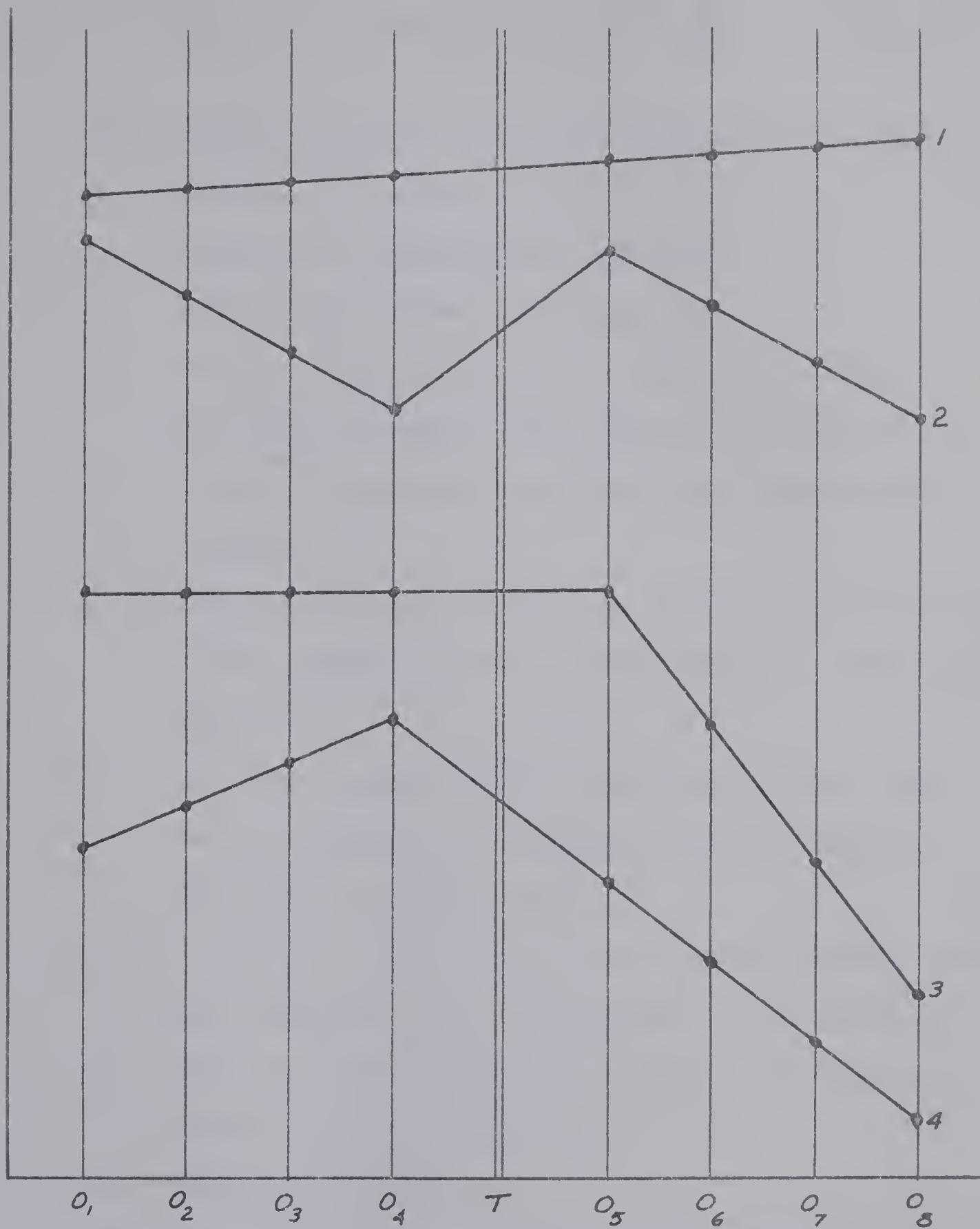


Figure 1. An example of possible results after introduction of a treatment variable into a time-series experiment

post-treatment (n_2)

$$z_t = L + \gamma \mu_{(t-1)} + \nu + \gamma \Delta_{(t-n_1-1)} + \Delta + \sum_{j=1}^{t-1} \alpha_j + \alpha_t + \delta$$

The variables in the model are defined as follows:

T treatment variable.

n_1 number of observations before T .

n_2 number of observations after T .

z_t value of the observation variable at time t .

The model requires approximately 15 pre- T and 15 post- T measures so that trend may be established.

L fixed but unknown location parameter descriptive of the general level of the series in the distant past.

α_t periodic random shocks upon the series. This random variable is assumed to have a mean of zero and a variance σ^2 .

γ a proportion of the periodic random shocks which are absorbed into the system. γ is dependent upon the interdependence of the t_s and assumes values between 0 and 2.0.

ν drift in the series

δ change in the level of the series after T . "The treatment is assumed to work an immediate and constant effect, delta, upon the time series" (Glass and Maguire, 1968, p. 28).

Δ change in drift or slope of the series after T.

$h(\gamma|z)$ the posterior distribution or probable distribution of gamma given the data. Since gamma is usually unknown, a Bayesian approach is used which is equivalent to inspecting the likelihood function of gamma given the data (Glass and Maguire, p. 29).

"Prior to T, the series drifts (on the average) at a rate of $\gamma\mu$ units (up or down depending on the sign of μ) for each unit of time; after T, the series drifts $\gamma(\mu + \Delta)$ units on the average for each unit of time" (Glass and Maguire, 1968, p. 95).

Analytical procedures begin with a plotting of the likelihood distribution of gamma given the data from gamma 0 to gamma 2.0. Over this range, Student's t values for change in level (δ) and change in slope (Δ) are also plotted. Then these t values are examined over the major area of the posterior likelihood distribution of gamma. If the t values for either δ or Δ approach significance for the most likely values of gamma (with $df = n_1 + n_2 - 4$), then the changes in level and/or slope are held to be significant.

Complete computer programs for the analysis of time-series experiments with either constant drift or slope, or a possible change in slope appear in Appendices A and B of Glass and Maguire (1968).

Verbal content. The various measures of topical reference employed in this study were analyzed with the same statistical models and procedures as the measures of verbal quantity and verbal frequency described above.

Interpersonal perception. The Group Semantic Differential scores provided 8 descriptions of each group member at four separate measurement times for the three groups. One of these 8 descriptions was a self-description. Each description is composed of a 1-7 rating on 18 different traits.

To obtain measures of agreement between self and other descriptions, a product-moment correlation was computed between each group member's self-description and the 7 descriptions made of him by other group members. All resulting rs were converted to Fisher's Z, the total Zs summed, and a mean Z calculated to serve as a measure of central tendency.

The resulting four Zs (over the four testing periods), were transformed to rs and provided measures corresponding to average ratings of agreement between self and other perceptions. These four rs will be denoted by r_1 , r_2 , r_3 , and r_4 .

GSD1 and GSD2 were completed before the independent VTR playback variable and GSD3 and GSD4 were completed after the independent variable. Therefore, verification of the hypothesis of greater self and other perceptual agreement following VTR playback required a significant increase

between r_2 and r_3 but little or no change between r_1 and r_2 , or r_3 and r_4 (ie. there is a marked increase in individual and group agreement following VTR playback but this increase does not occur in either pre- or post-VTR periods).

The second area of investigation with the GSD data was to determine if the entire group tended to reach greater consensus in their descriptions of individual members immediately after introduction of the videotape feedback variable. A total intercorrelational matrix was calculated involving every member's description of all members, including himself. The resulting 64×64 matrix provided 2016 individual paired comparisons. The rs from these comparisons were transformed to Fisher's Z, summed, averaged, and reconverted to rs. These calculations provided rs for the four GSD measurements and corresponded to average ratings of agreement or consensus between all group members over all descriptions of individual group members.

Interpretation of results was identical to that described for self-other measures of agreement.

Statistical Hypotheses for Trend Analysis

In terms of the outlined statistical procedures, research hypotheses concerned with change in level and/or slope of time-series data may now be stated in statistical format as follows:

$$\text{Hypotheses I, III, VII. } H_0: \delta = 0, \quad H_1: \delta < 0 \\ \alpha = .05, \quad R: t \leq -1.71$$

Hypotheses II, IV, VIII. $H_0: \Delta = 0$, $H_1: \Delta < 0$
 $\alpha = .05$, R: $t \leq -1.71$

Hypothesis V. $H_0: \delta = 0$, $H_1: \delta > 0$
 $\alpha = .05$, R: $t \geq 1.71$

Hypothesis VI. $H_0: \Delta = 0$, $H_1: \Delta > 0$
 $\alpha = .05$, R: $t \geq 1.71$

CHAPTER V

FINDINGS AND CONCLUSIONS

Time-Series Division

A total of three videotape self-confrontations were presented to each of the T-groups to ensure sufficient feedback. The time-series of the 28 segments could be divided either after the first VTR replay ($n_1 = 15$, $n_2 = 13$), or after the last VTR replay ($n_1 = 17$, $n_2 = 11$). Both analyses were conducted; results were essentially the same in both.

The conclusion appears to be that the reaction to videotape self-confrontation is not a major function of number of presentations, that is, results were similar whether analyzed after a single VTR replay or after three VTR replays. Since the two divisions were similar, only results of the first division (15-13) will be presented and discussed.

Hypotheses I and II

The first two hypotheses were concerned with quantity of speech and suggested that there would be a decrease in both level and slope of group total time variance (in seconds of speech) after introduction of videotape feedback to the groups.

Table 4 presents the variances for both total time of verbal output and frequency of verbalizations for the three groups over the 28 segments. The trends in the time-series

TABLE 4

GROUP VARIANCE OF INDIVIDUAL VERBAL
OUTPUT IN SECONDS OF SPEECH AND
FREQUENCY OF VERBALIZATION

Session	Total Time Variance			Frequency Variance		
	Group A	Group B	Group C	Group A	Group B	Group C
1	2510	3880	6520	178	48	86
2	8270	1850	4750	113	40	88
3	3850	3930	3810	41	15	79
4	2000	6210	1120	110	67	52
5	8650	3220	2450	197	79	134
6	4540	5230	2850	73	50	42
7	1900	7500	3710	17	67	84
8	4560	3360	7210	48	60	103
9	3480	9700	1940	55	237	12
10	11390	4960	8600	425	85	229
11	18790	7800	4610	341	180	257
12	6650	7180	6880	61	177	34
13	5420	8670	5840	266	93	154
14	4040	1830	5370	101	51	593
15	1450	3360	4030	43	66	269
 ----- Videotape Self-Confrontation -----						
16	3810	2810	3480	148	48	267
17	9520	2820	4800	152	60	180
18	2340	5320	10420	22	71	195
19	2590	1470	9620	78	19	194
20	8820	5300	3030	378	99	169
21	6870	5870	5980	214	197	192
22	8760	1160	6760	58	91	292
23	6390	4190	18760	125	53	241
24	4540	2180	6670	92	37	123
25	7620	11460	5520	167	128	213
26	5130	7320	1080	105	172	72
27	16020	3730	4120	65	119	102
28	2140	5660	3230	67	159	118

for total time variance are graphically illustrated in Figures 2, 3, and 4.

The Glass-Maguire time-series analysis, using 15 pre-VTR observations and 13 post-VTR observations, was applied to the variances. Figure 5 presents plots of the values of Student's t for change in level (δ) and t for change in slope (Δ) over the posterior distribution of gamma. A detailed explanation of the interpretation of results is presented for Group A; this method then applies as well to all further time-series results.

Group A. An inspection of the graph (Figure 5) indicates that the likely values of gamma are values between 0 and .10. Over these values t for change in level (t_{δ}) ranges from -.23 to -.42, and t for change in slope (t_{Δ}) ranges from -.19 to -.19. The critical value of t (as given in the statistical hypotheses on pages 54-55 and indicated by the dashed line in Figure 5) is $t \leq -1.71$. These results are not significant and indicate that the hypotheses $H_0: \delta = 0$ and $H_0: \Delta = 0$ cannot be rejected for this group. Therefore, neither the level nor the slope of total time variance were caused to decrease significantly in Group A.

Group B. Again, $H_0: \delta = 0$ and $H_0: \Delta = 0$ must be accepted and the conclusion made that the hypothesized changes did not occur although δ was in the hypothesized direction and approached significance.

Group C. As in the other two groups, $H_0: \delta = 0$ must

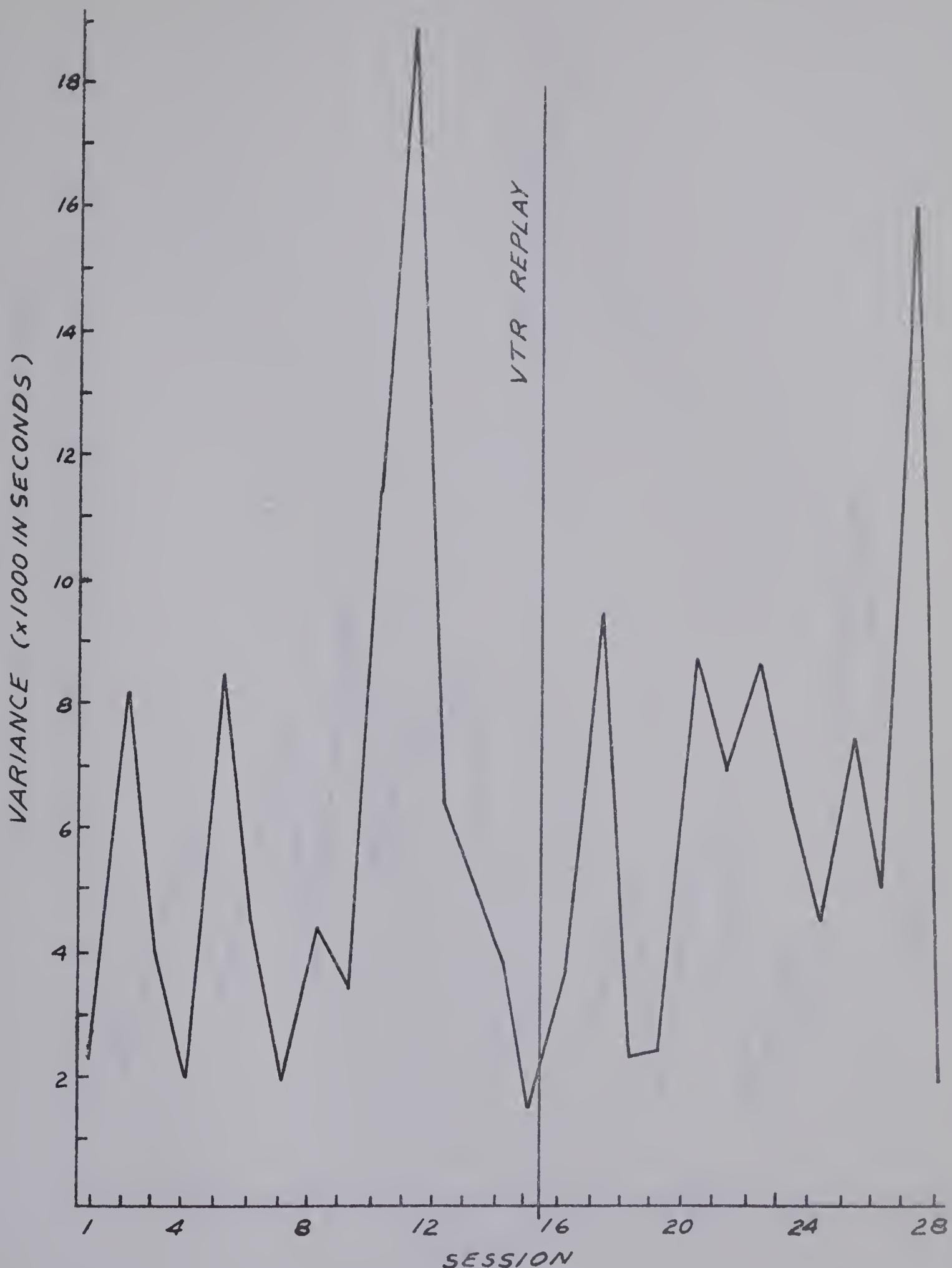


Figure 2 . Graph of total time variance
of verbal output for Group A

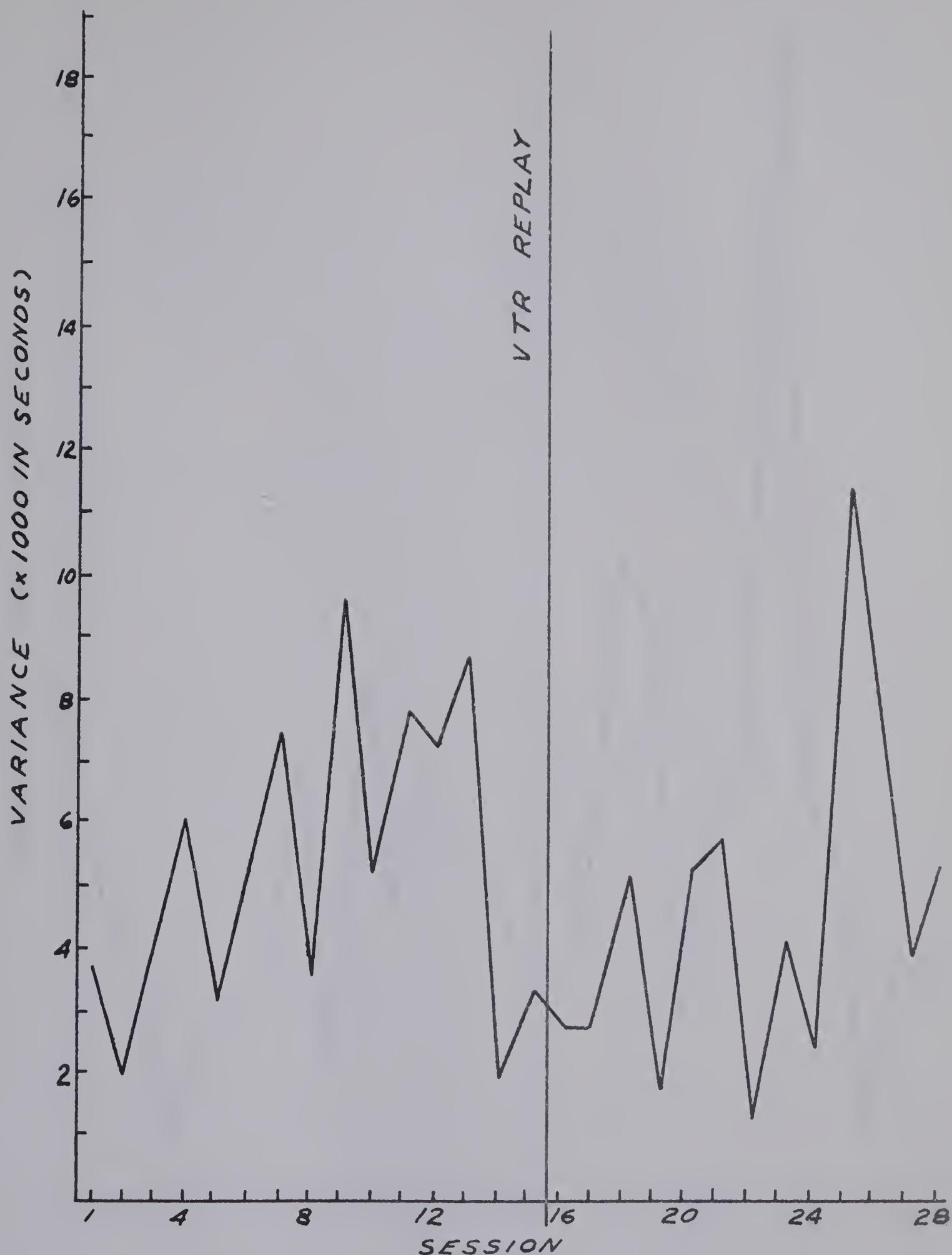


Figure 3. Graph of total time variance of verbal output for Group B

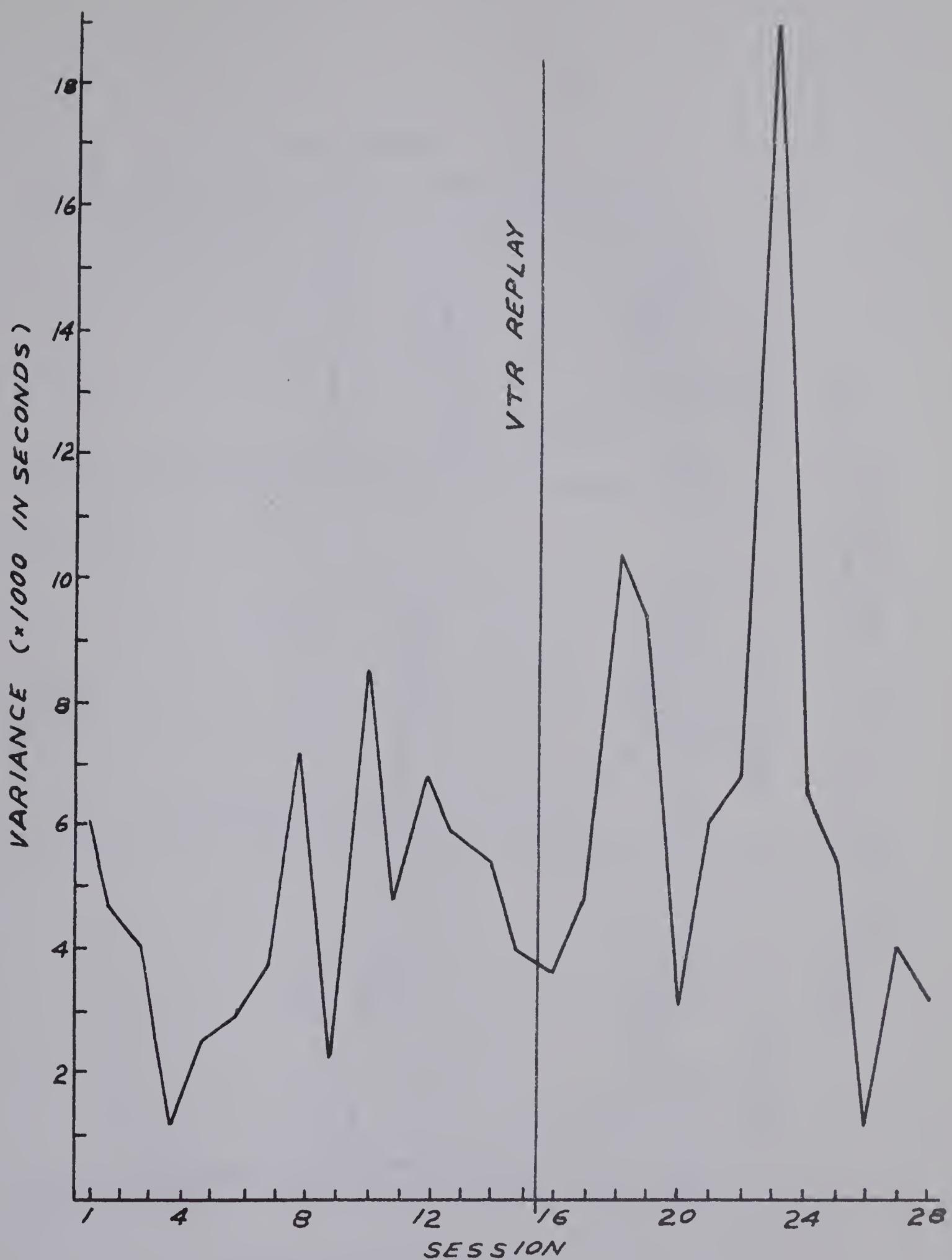


Figure 4. Graph of total time variance of verbal output for Group C

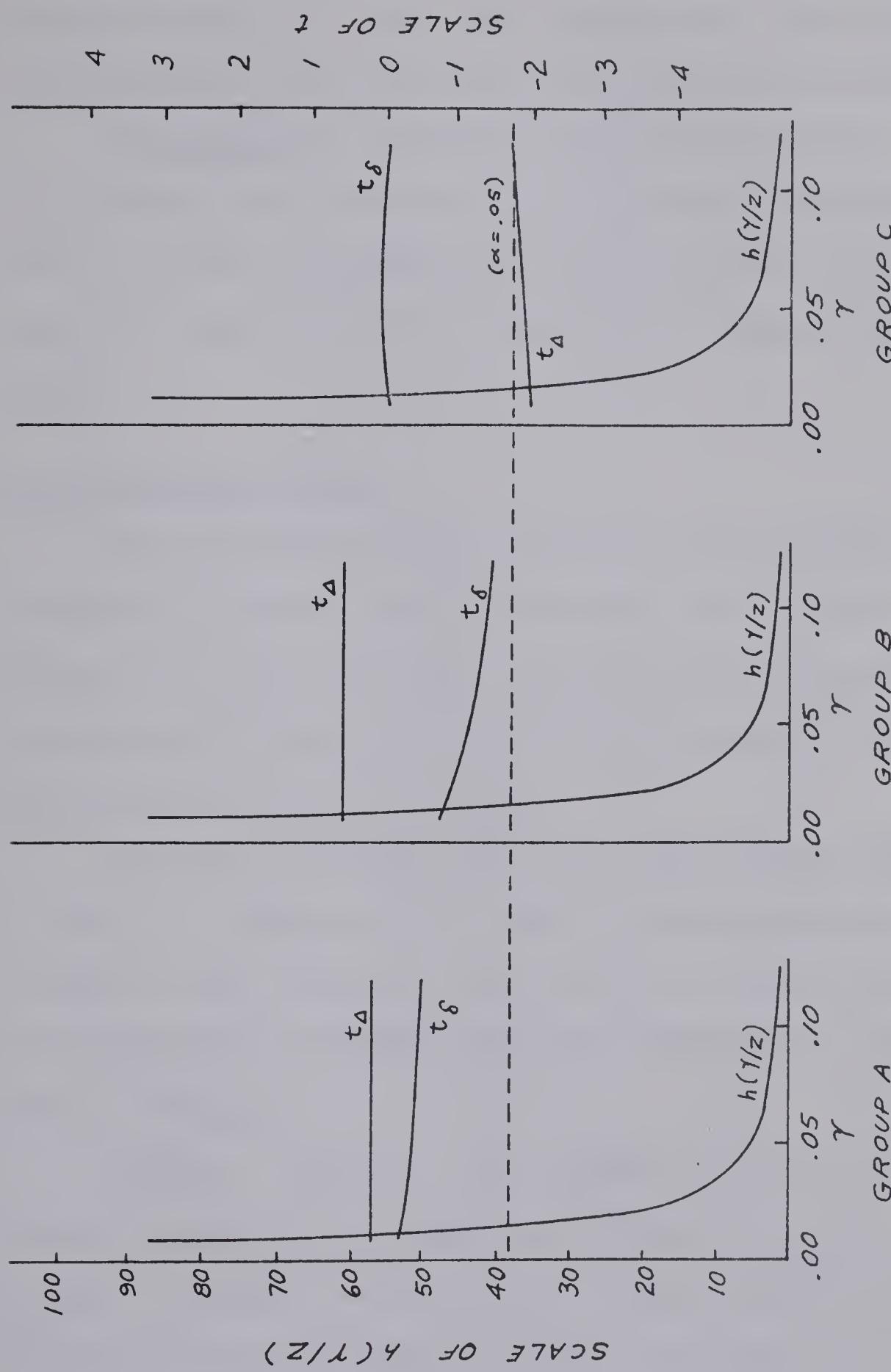


Figure 5 • Values of t for change in level and slope of total time variance

be accepted. However, the hypothesis $H_0: \Delta = 0$ is rejected in favour of the alternative, $H_1: \Delta < 0$. Thus, there was a downward shift in total time variance for this group after introduction of the VTR self-confrontation variable.

Conclusions. Videotape self-confrontation was generally shown to be ineffective in causing a decrease in either level or slope of group total time variance, although one group did experience the hypothesized change in post-VTR slope.

Hypotheses III and IV

The third and fourth hypotheses were made in terms of frequency of speech and hypothesized that there would be a decrease in both level and slope of group frequency variance (in counts of verbal utterance) as a result of videotape self-confrontation in T-groups.

Frequency variances for the three groups were given in Table 4. Figures 6, 7, and 8 provide graphical representations of the trends in each series. Application of the Glass-Maguire time-series analysis resulted in the findings shown in Figure 9.

Group A. Neither t for change in level nor t for change in slope approached significance; $H_0: \delta = 0$ and $H_0: \Delta = 0$ cannot be rejected. No hypothesized change occurred in the variance of verbal frequency for Group A.

Group B. As with Group A, $H_0: \delta = 0$ and $H_0: \Delta = 0$ must be accepted and the conclusion drawn that the hypothe-

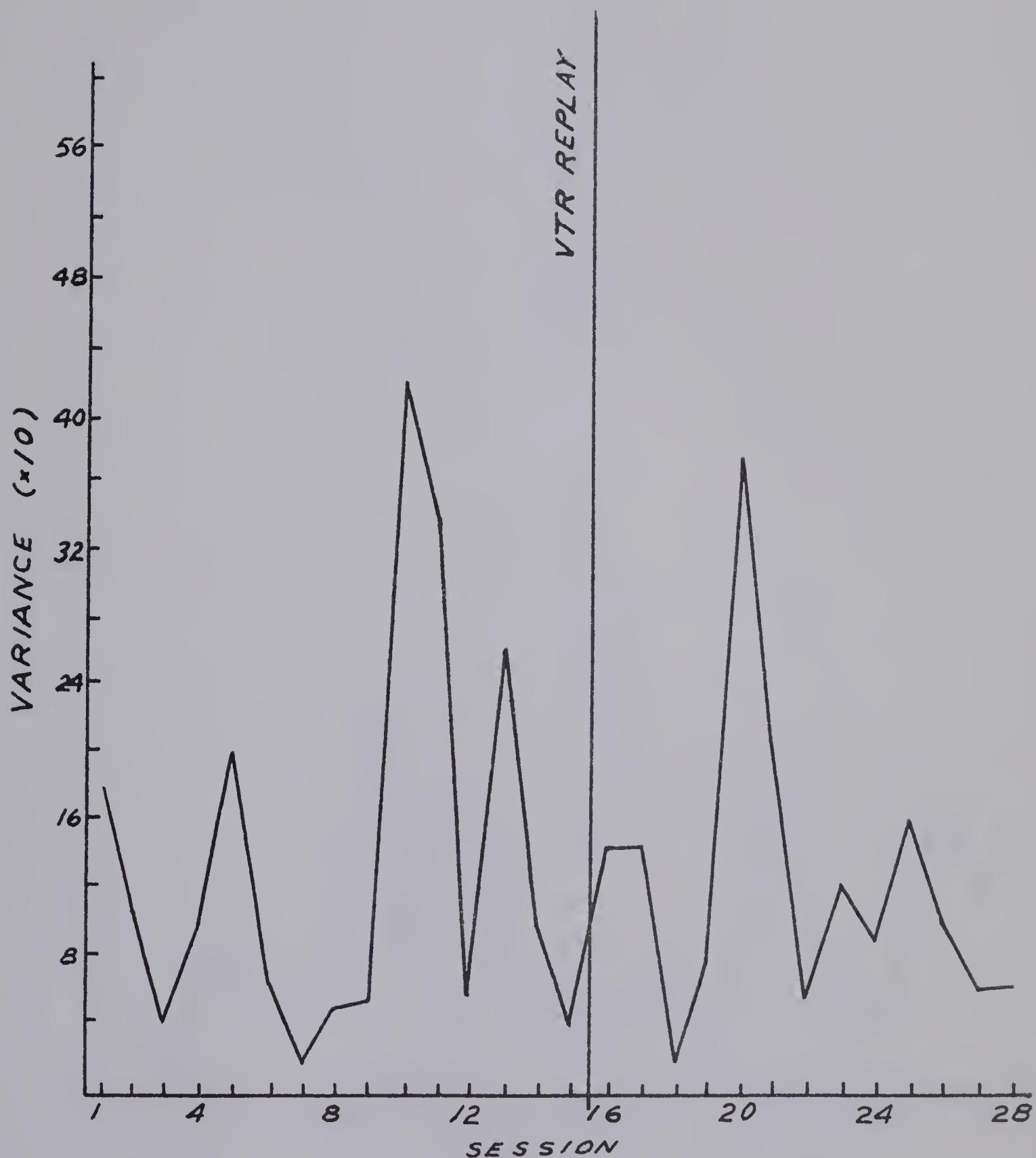


Figure 6. Graph of frequency of verbal output for Group A

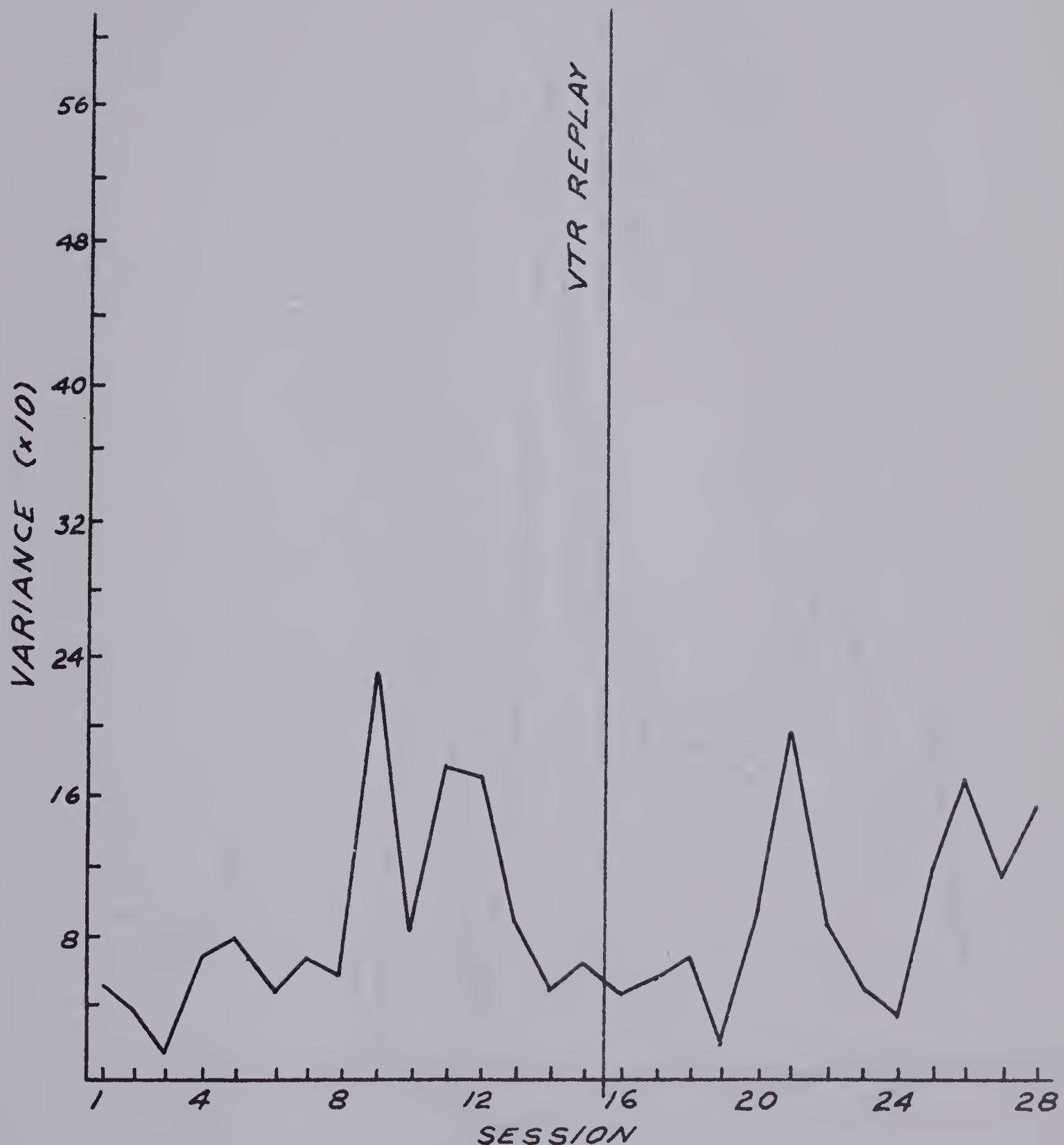


Figure 7. Graph of frequency of verbal output for Group B

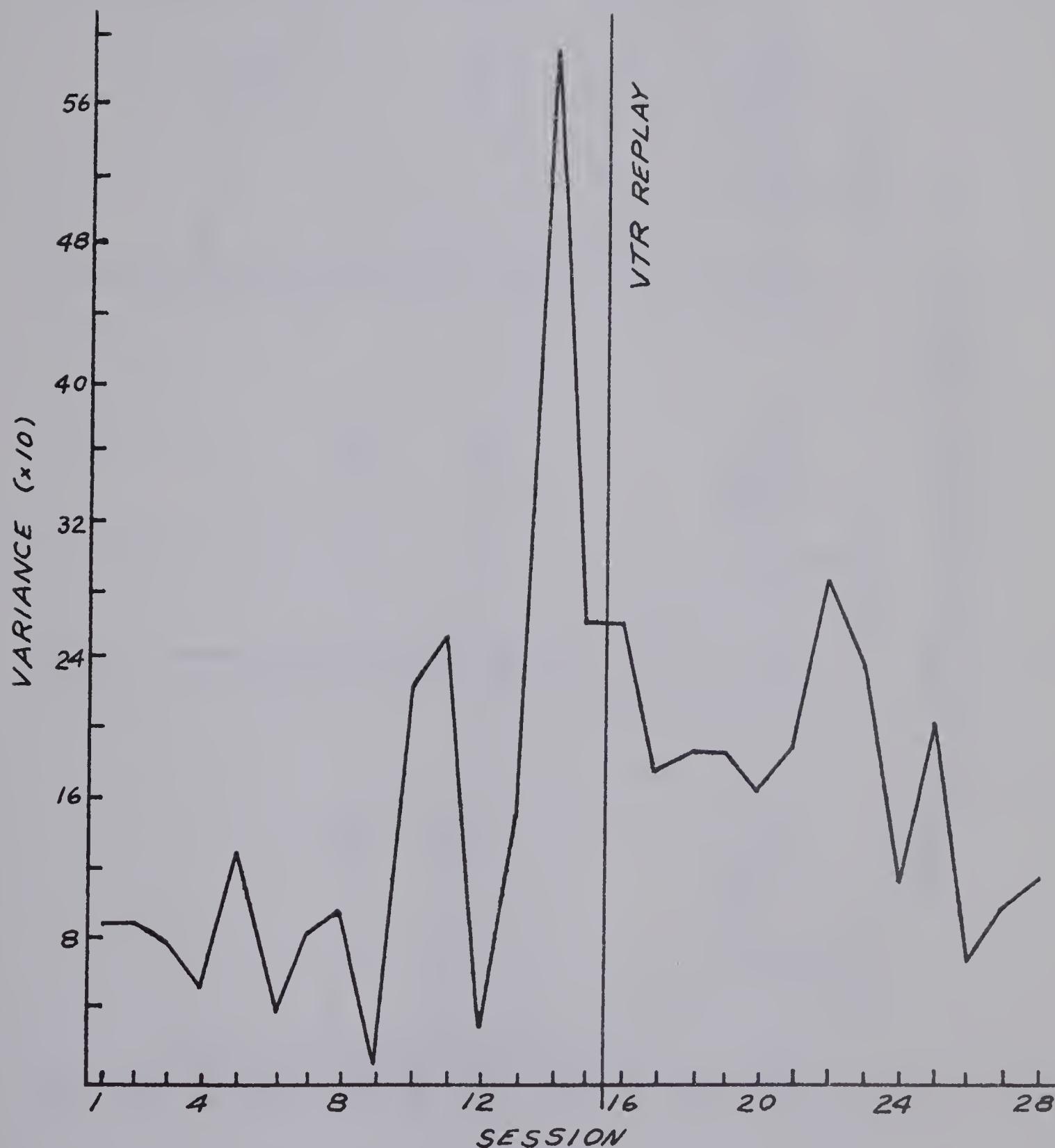


Figure 8 . Graph of frequency of verbal output for Group C

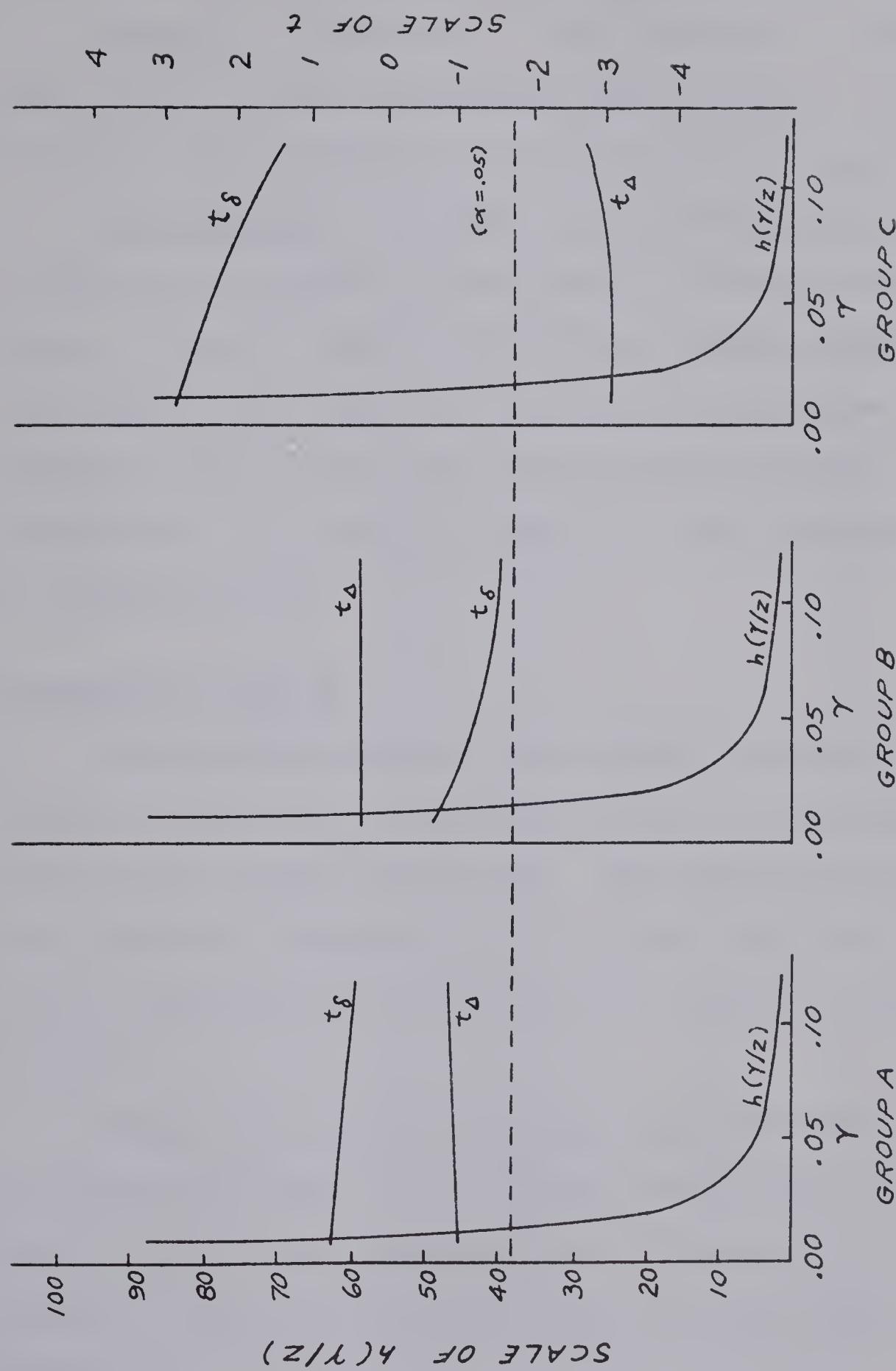


Figure 9. Values of t for change in level and slope of frequency variance

sized changes did not occur, although δ was in the predicted direction and approached significance.

Group C. Inspection of the values of t indicates that $H_0: \delta = 0$ must be accepted but $H_0: \Delta = 0$ is rejected in favour of $H_1: \Delta < 0$ at the .01 level of significance.

Conclusions. Videotape self-confrontation effected a significant change in the slope of frequency variance with Group C; that is, after VTR feedback, group members began to vary less in the number of times that each spoke during a segment. None of the other hypothesized changes were achieved with any group in regard to group frequency variance of verbalizations.

Hypotheses V and VI

These two hypotheses were stated in terms of verbal content as measured by the proportion of here-and-now references to all speech references. The hypotheses were that there would be increases in both level and slope of proportion of here-and-now references as a result of videotape feedback.

Proportions of both here-and-now references and there-and-then references for all three groups appear in tabular form in Table 5 and graphically in Figures 10, 11, and 12. Values of t plotted from the trend analysis appear in Figure 13.

Group A. The graph of t values for change in level and slope shows that the hypotheses $H_0: \delta = 0$ and $H_0: \Delta = 0$

TABLE 5

PROPORTIONS OF SPECIFIC VERBAL CONTENT
REFERENCES TO TOTAL REFERENCES

Session	Proportion of Here-and-now References			Proportion of There-and-then References		
	Group A	Group B	Group C	Group A	Group B	Group C
1	.463	.361	.395	.439	.541	.481
2	.403	.250	.340	.390	.466	.549
3	.574	.265	.541	.296	.559	.297
4	.674	.275	.309	.243	.652	.495
5	.400	.534	.300	.460	.288	.542
6	.322	.375	.283	.534	.333	.545
7	.756	.476	.675	.159	.349	.238
8	.277	.788	.378	.646	.113	.432
9	.483	.662	.545	.514	.221	.242
10	.520	.598	.440	.330	.256	.440
11	.454	.856	.204	.278	.041	.646
12	.576	.753	.354	.288	.141	.542
13	.491	.441	.347	.389	.441	.592
14	.463	.260	.227	.389	.481	.663
15	.722	.457	.443	.167	.358	.507
 ----- Videotape Self-Confrontation -----						
16	.645	.686	.595	.215	.157	.310
17	.576	.807	.402	.235	.105	.533
18	.580	.980	.414	.203	.000	.515
19	.816	.915	.255	.126	.043	.657
20	.798	.250	.626	.073	.571	.325
21	.620	.291	.295	.304	.534	.657
22	.590	.425	.390	.333	.443	.581
23	.798	.559	.382	.119	.279	.579
24	.533	.608	.545	.427	.196	.427
25	.554	.741	.438	.400	.111	.473
26	.831	.544	.718	.108	.281	.243
27	.371	.438	.379	.486	.391	.579
28	.659	.707	.316	.273	.232	.632

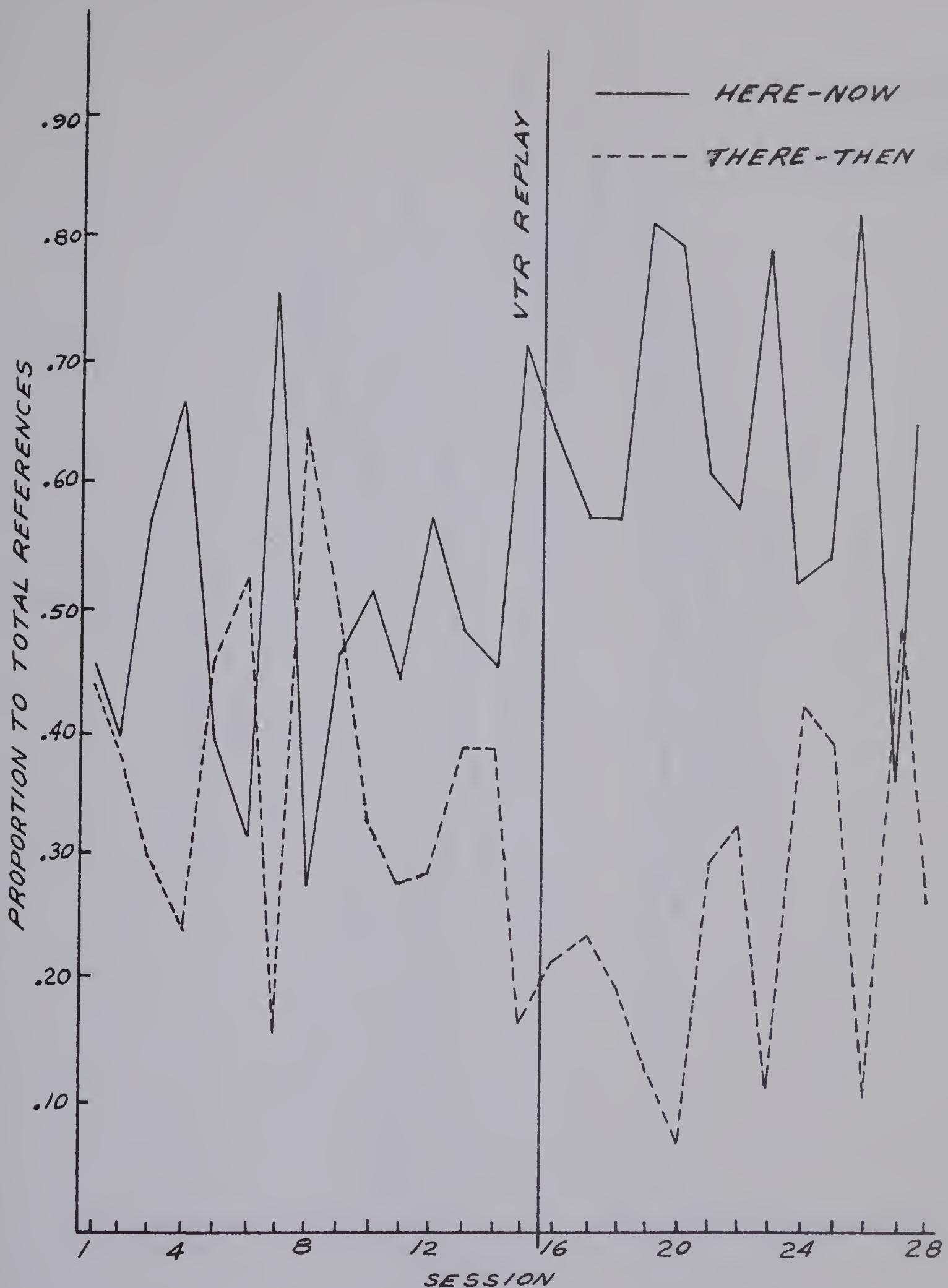


Figure 10. Graph of proportions of verbal content for Group A

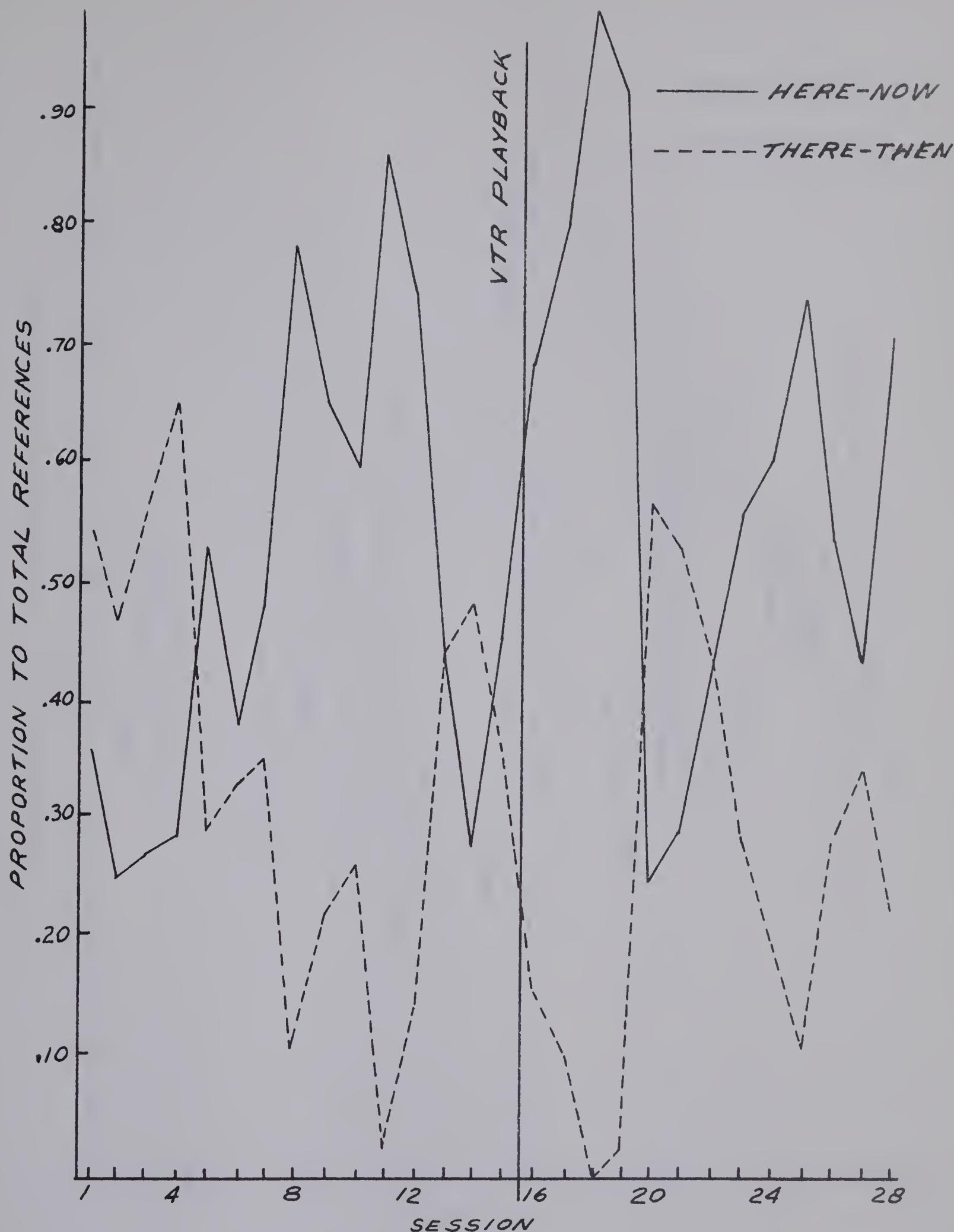


Figure 11. Graph of proportions of verbal content for Group B

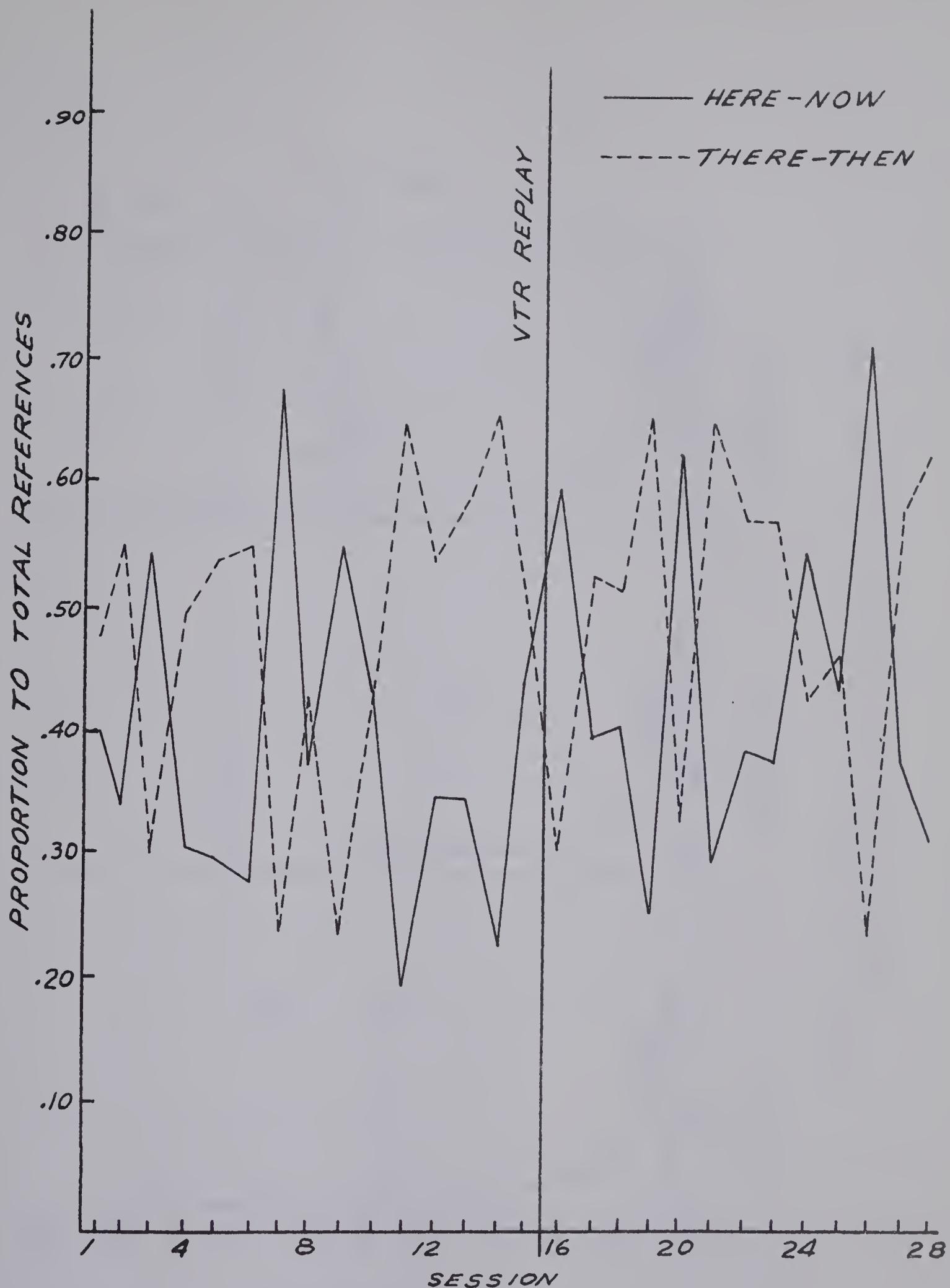


Figure 12. Graph of proportions of verbal content for Group C

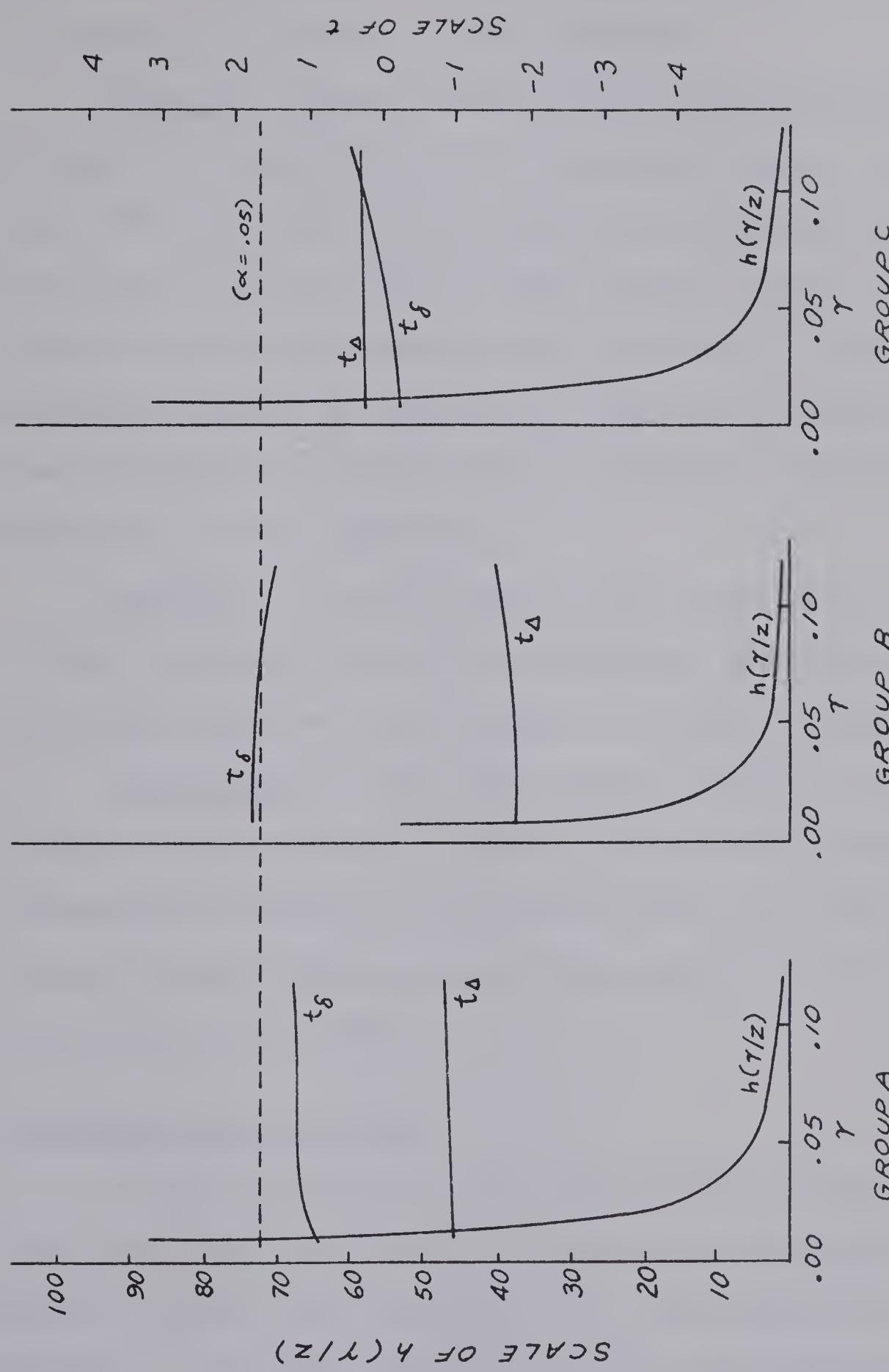


Figure 13. Values of t for change in level and slope for here-now verbal references

cannot be rejected for Group A. Therefore, the predicted change in proportion of here-and-now verbal references did not occur as a result of VTR feedback.

Group B. Group B experienced a significant increase in level of proportion of here-and-now verbal references after VTR feedback but reference to the graph indicates that the slope of proportion of here-and-now verbal references tended to decrease significantly post-VTR. Following VTR feedback, the group immediately began to use more here-and-now references but this change gradually reversed over the remainder of the segments.

Group C. As with Group A, no significant changes were evident in proportion of here-and-now references and the hypotheses $H_0: \delta = 0$ and $H_0: \Delta = 0$ were accepted.

Conclusions. Only one T-group (Group B) experienced a predicted increase in verbal content as a result of the independent variable; and this increase in level of here-and-now verbal references was transitory as the slope fell significantly post-VTR.

Hypotheses VII and VIII

It was predicted in the seventh and eighth hypotheses that both level and slope of proportion of there-and-then verbal content would decrease as a function of videotape feedback. Data for these hypotheses have previously been introduced in Table 5 (p. 69) and Figures 10, 11, and 12 (pages 70-72). Plots of t values are given in Figure 14.

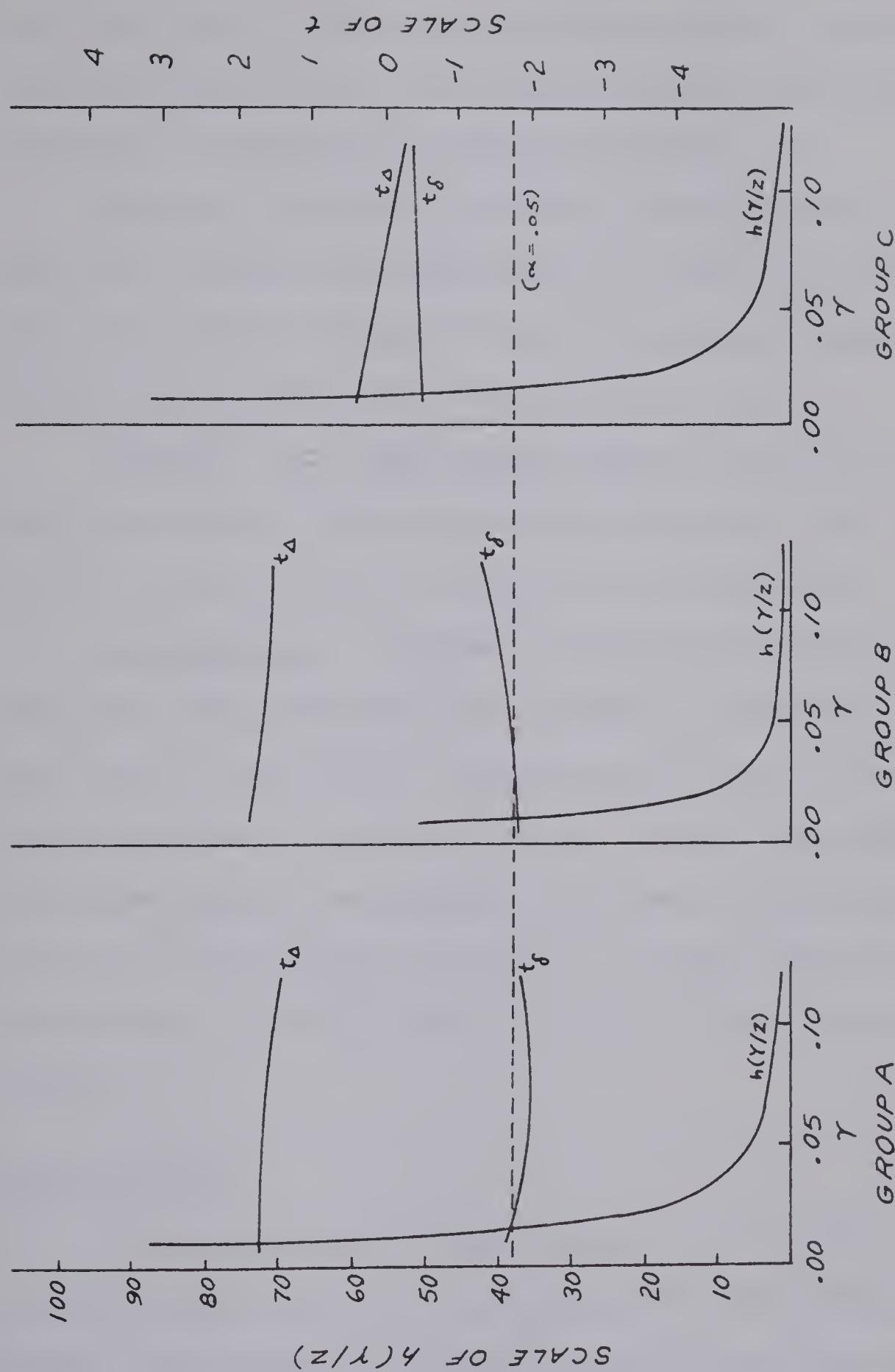


Figure 14. Values of t for change in level and slope for there-then verbal references

Group A. Range of t values for change in level was -1.75 to -1.92. These findings led to rejection of $H_0: \delta = 0$ and acceptance of the alternative $H_1: \delta > 0$. Although only indicative of a trend, the slope of there-and-then content for Group A tended to increase post-VTR.

Group B. Inspection of the graphed results indicates that this group also experienced a significant decrease in level of verbal content and an increase in slope of verbal content after videotape self-confrontation.

Group C. No significant change occurred in either level or slope of there-and-then references; the hypotheses $H_0: \delta = 0$ and $H_0: \Delta = 0$ could not be rejected.

Conclusions. Videotape self-confrontation had no influence upon there-and-then content references in Group C. Both Group A and Group B experienced a significant hypothesized decrease in level of verbal content post-VTR but as with here-and-now references, this was a momentary change; slope of the variables increased in both groups post-VTR indicating a gradual return to the previous level of verbal content.

Hypothesis IX

It was proposed in Hypothesis IX that self descriptions and descriptions of a person by others would assume greater congruence or similarity following videotape feedback. The rs given in Table 6 represent average self-other perceptual congruence over the four measurement periods, that

is, GSD1, GSD2, GSD3, and GSD4. Support of the hypothesis required an increase between r_2 and r_3 but relative stability between r_1 and r_2 , and between r_3 and r_4 .

Group A. The four correlation coefficients for Group A are nearly identical, indicating that neither the videotape feedback, nor any other variable appreciably influenced degree of self and other perceptual congruence.

Group B. There was a slight increase in self-other perceptual congruence between GSD1 and GSD2 and this pattern was repeated between GSD3 and GSD4. However, no increase in congruence occurred between GSD2 and GSD3.

Group C. Data for Group C illustrate a natural slight upward trend peaking at GSD3 and then falling off slightly. Thus, the minor increase between GSD2 and GSD3 cannot be assumed due to videotape self-confrontation.

TABLE 6

CORRELATION COEFFICIENTS CORRESPONDING
TO MEAN GROUP AGREEMENT BETWEEN
SELF-PERCEPTION AND PERCEPTION-
OF-SELF BY OTHERS

Group	Group Semantic Differential			
	1	2	3	4
A	.30	.26	.27	.27
B	.37	.47	.38	.47
C	.41	.59	.64	.50

Conclusion. The hypothesis that videotape self-confrontation would result in greater congruence between self-descriptions and descriptions-of-self by others was not supported by the trend of the data in any of the groups. On the average, there was as much agreement between self and other descriptions before and after videotape self-confrontation.

Hypothesis X

The final hypothesis was concerned with overall group consensus in interpersonal perception. Degree of group consensus, as measured by r_s corresponding to average agreement between all possible paired person perceptions, is shown in Table 7. As with the previous hypothesis, support of the hypothesis required increase between r_2 and r_3 but relative stability from r_1 to r_2 , and from r_3 to r_4 .

TABLE 7

CORRELATION COEFFICIENTS CORRESPONDING
TO MEAN GROUP AGREEMENT BETWEEN
ALL INTERPERSONAL PERCEPTIONS

Group	Group Semantic Differential			
	1	2	3	4
A	.23	.23	.21	.17
B	.24	.32	.31	.38
C	.43	.55	.55	.55

Groups A, B, and C. It is evident from the results in Table 7 that no change occurred between r_2 and r_3 for any group.

Conclusion. The hypothesis that videotape self-confrontation would result in decreased mean group variability in regard to the description of any single member was not supported with any of the three T-groups. Each group tended to maintain the initial degree of perceptual consensus exhibited at GSD1 throughout the series.

CHAPTER VI

SUMMARY AND DISCUSSION

There are many factors which effect change in any social interaction. This study attempted to isolate the influence of a single variable, immediate self-image impact of videotape self-confrontation.

Dependent variables covered three major areas of group behavior: verbal output, verbal content, and interpersonal perception. There were 12 tests of significance related to the effects of videotape self-confrontation upon verbal output. Two of these tests showed statistical significance. Verbal content accounted for a further 12 tests of significance; three of these tests showed statistical significance. None of the results of the six tests related to the area of interpersonal perception approached statistical significance.

Given these research findings, the conclusion is that the introduction of videotape self-confrontation into an on-going series of T-group sessions does not result in significant change in the variables chosen for study consistent with the principles of Rogerian self theory and related to the goals of T-groups.

Videotape self-confrontation seems applicable to self theory as Rogers views behavior as a function of self-perception and informational feedback. Videotape

self-confrontation is generally considered to be a most effective and extensive form of informational feedback regarding the self-structure. The present study was carefully designed to control external variables and, as much as possible, isolate the influence of videotape self-confrontation upon group interpersonal behavior. Given such detailed and complete feedback, one might assume that Rogers' characteristics of the fully functioning person, and the closely-related T-group goals, would be achieved with group members.

Writers such as Alger and Hogan (1967), Berger *et al* (1968), Czajkoski (1968), and Stoller (1967a) have implied that the technique is indeed so effective as to precipitate change immediately, without ancillary processes or directions. Thus, the trainers in the present study were given no special directions as to the use of the videotape replays.

The results of the study indicate that this might be an unrealistic approach and suggest that the positive results reported in several clinical studies in the literature are possibly a function of subjective optimism in the face of minimal research data, or possibly a function of special videotape treatments and methods not reported.

Incidental Findings

Influence of group leaders. Statistical analyses were conducted both with and without the inclusion of leader verbalizations. In all cases, results from such partial groups were essentially identical with findings from the

full groups. Therefore, group reaction, or lack of reaction to videotape replay was not different from leader reaction.

Questionnaire responses. As the study progressed, it became apparent that group members were reacting favourably to both the group experience and the videotape procedures. In an attempt to gather some subjective evidence a short questionnaire regarding the study was distributed after the final group session. Subjects completed the instrument anonymously. Some of the results of that survey appear below.

1. Reaction to technology. Surprisingly few members found the technical equipment and procedures bothersome as indicated by responses to four questions.

-Did the technicians in the control room bother you?

0% Yes, very much

30% Yes, a little bit

70% No, not at all

-What did you think of the neck microphones?

0% They bothered me all through the sessions

41% They bothered me only at first

59% I hardly noticed them

-Did the camera make you nervous or uncomfortable?

41% Yes

59% No

-If you were nervous because of the camera, how long did this nervousness last?

46% Only for the first few minutes of the first session

39% For the first few sessions

15% For most of the sessions

2. Length and number of sessions. Group members tended to be evenly divided on their choice of ideal length and number of sessions.

-How long do you think sessions should be?

40% $1\frac{1}{2}$ hours, like we had

30% 1 hour or less

30% longer than $1\frac{1}{2}$ hours

-How many sessions would you like to have had?

12% fewer than 10

29% 10, like we had, was about right

12% at least 15

47% more than 15

3. Group evaluation. Nearly all group members felt the group helped both themselves and other group members, and most were eager to continue in other such groups.

-Did the group help you in any way?

94% Yes

6% No

-Do you think the group helped any other members?

100% Yes

0% No

-Would you like to be in another group?

83% Yes

17% No

Suggestions For Further Research

This study has been basically exploratory in nature and limited in scope. It has shown that videotape self-confrontation is of little value as a general, isolated, and indiscriminate feedback procedure. However, the few significant research findings and the subjective reactions of the participants to the experience indicate that videotape self-confrontation does possess potential as an adjunct to group procedures. Several research activities are suggested in an attempt to develop that potential.

Attention should be directed to the varying role of the group leader or therapist in conducting videotape replay sessions. There is a question as to how active and directive the leader should be. A subjective assessment of the videotapes of the group sessions in this study indicates that there may be a modeling influence in the groups and that leaders who actively and openly respond to their own videotape image during replay may encourage this behavior in other group members.

There is a need to study the effects of specific, selected videotape replay samples. This study employed randomly selected videotape samples for replay to group members. Gazda (1969), a recognized authority on group procedures, read the preliminary draft of the current study and suggested that,

If you are going to try to change specific behavior, you must select incidents of domination by highly verbal members and use the discussion time to help them see what it does to other group members and to them. A random selection very well might increase verbal dominance, etc. of the more aggressive members and decrease the passive members' output because nothing is built in for counterconditioning.

Gazda's comments imply that research results might have been significant in the present study if group members had been presented with carefully chosen videotape samples of obvious insensitive and inaccurate interpersonal responses; samples of highly defensive, irrelevant, there-and-then verbalizations; and patterns of group interaction characterized by verbal monopolization, interruption, and isolation. Future research should definitely examine this problem.

Another question exists as to the desirable amount of feedback necessary to precipitate group behavior change. This study provided participants with a total of only 30 minutes of videotape feedback. There may be both a minimum and a maximum of effective feedback and this variable should be investigated. Some participants appeared bored after five minutes of videotape replay while others were disappointed

that only 30 minutes was provided. These observations indicate the possibility of individual differences and perhaps a stimulus saturation point for some types of subjects.

Finally, there is an indication that videotape self-confrontation may be beneficial in the management of special situations such as cases of alcoholism, obesity, drug addiction, delinquency, and compulsive behavior. Group members in the present study seemed to react to aspects of their physical appearance which they found annoying or distasteful. This suggests the possible use of the technique with subjects having outward manifestations of their problems. Videotapes might be recorded of samples of problem behavior such as acting out delinquents, alcoholics undergoing delirium tremens, obese persons eating, and so forth. These recordings could be replayed to the subjects at a later time in an attempt to confront them with their unpleasant self-image, a self-image which they tend to deny or distort in a defensive manner.

In summary, the results of this study, along with evidence from other studies reviewed, indicates that videotape self-confrontation is of questionable value as a change agent in human relations training. It seems reasonable to postulate that unless videotape replays are carefully planned, selected, and discussed, behavior change will be minimal.

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APPENDICES

APPENDIX A

NOTICE TO ALL STUDENTS AT AVC

What is this all about?

Sometimes some of us feel uncomfortable when we are with a group of people. We can't seem to say what we want to say; we feel like everybody is looking at us. It would be much better if we could learn to relax in a group; learn how to talk to people; and find out how to get the most out of a group.

How can we do this?

Mr. Pierre Turgeon, Mr. Joe Neufeld, and Mr. Ken Checkley are going to set up some groups where people may learn how to understand each other more; to get along better in a group; and to feel more relaxed in a group situation.

There will be only three groups here. Each group will contain 9 or 10 people and will meet twice a week for $1\frac{1}{2}$ hours. Each meeting will be recorded on videotape and group members will have a chance to see themselves in a playback.

When will this take place?

The first meetings will be during the first week of November. Each group will meet 10 times and all three groups will be finished by the second week in December.

Who will be in the groups?

The groups will be made up of AVC students who are interested in getting along better in groups. Any students who wish to take part must be willing to come to all 10 meetings. This is important.

NOW, ARE YOU INTERESTED?
If you are interested, fill
in your name, address, and
home phone number so we can
get in touch with you.

NAME: _____

ADDRESS: _____

PHONE: _____

Now please put a 1 and a 2 beside your first and second choices for times when you would like to come.

_____ 4:30-6 Tuesday and Thursday

_____ 4:30-6 Wednesday and Friday

_____ Tuesday and Thursday evening (about 7-8:30)

_____ Monday and Wednesday evening (about 7-8:30)

APPENDIX B

PERSONAL LETTER OF ACCEPTANCE

Dear _____,

I am happy to hear that you want to take part in the groups at Alberta Vocational Centre. You will be in a group with Mr. _____. This group will meet on Tuesdays and Thursdays from 7:30 to 9:00 p.m. in Room T-705 at AVC. Your first meeting will be on Tuesday, November 5 at 7:30 p.m.

Remember, there are 10 meetings and it is important that you attend as many as you possibly can.

The dates that your group will meet are circled on the calendar below. Please save this letter so you can check on place, times, and dates.

November

S	M	T	W	T	F	S
					1	2
3	4	(5)	6	(7)	8	9
10	11	(12)	13	(14)	15	16
17	18	(19)	20	(21)	22	23
24	25	(26)	27	(28)	29	30

December

1 2 (3) 4 (5) 6 7

Thanks for your interest in the groups and we will see you at the first meeting.

Sincerely,

Roger Martin

APPENDIX C

MANUAL FOR HUMAN RELATIONS TRAINING

Roger D. Martin

November, 1968

This outline is designed to provide a common foundation and orientation for T-group work. It is not intended as a strict set of directions but as a general guide.

Definition

For the sake of brevity the term T-group will be employed throughout this manual but will be assumed to be synonymous with the terms sensitivity training group, basic encounter group, and human relations training group.

Whatever the term used, T-groups are not therapy groups but are groups for normal people who want to improve their capacity for living within their own sets of social relationships.

The T-group establishes intensive group self-study procedures in an attempt to provide maximum self-development and growth of all participants. Within a relatively unstructured atmosphere group members attempt, with the assistance of the trainer or facilitator, to achieve their particular goals.

In recent years, T-groups have tended to move toward more involved personality development and heightened self-understanding in addition to, or in place of, improved group skills.

Goals

The stated goals of T-groups have gradually changed as the basic T-group orientation has moved from concern with cognitive learning to development of human potential. Generally speaking, the following would seem to represent the major goals of T-group experience, at this time and under three broad categories:

- 1) the T-group serves to increase the individual's awareness of himself; the goal is for each member to explore and know himself more fully and accurately, to correct blind spots and distortions, to be more open and sensitive to experiences within that self.

- 2) the T-group further seeks to provide group members with the opportunity to increase their awareness of and sensitivity to the feelings and behavior of others.
- 3) finally, through the T-group experience, participants hopefully become more spontaneous and open in their interpersonal reactions, more capable of acting in a collaborative and interdependent manner, and able to achieve a deeper emotional involvement with others.

Method

It is the function of the group trainer to provide the conditions wherein these stated goals may be achieved. As group leader you will attempt to:

- 1) create an unstructured group situation devoid of the usual group introductions, a selected leader, and imposed discussion topics or fixed agenda. You will initiate the group by reminding the participants that the group will meet for 10 sessions and that the major concern is with seeking to know and understand our own feelings and behavior and the feelings and behavior of others.

After this you sit back and wait for the group to react, actively rejecting any attempts to manipulate you into the leadership role. The ambiguous, novel situation created by this "social vacuum" will cause tension to mount in the group but it will also precipitate group behavior and reactions.

- 2) provide group participants with an atmosphere of trust, freedom, safety, and acceptance. This is a vital point if groups are to function at a productive level. Group members need to feel that they are protected by this "cultural island" of the group; that the group will be nonjudgmental and will allow them to express themselves fully and honestly.

Such a climate of permissiveness and "psychological safety" must, of course, originate with all the members of the group and not merely the leader. As facilitator, however, your function will be to encourage such a climate by actively supporting members, encouraging open behavior, and intervening to protect vulnerable members. Initially participants need the facilitator to remind them when they infringe on the rights and freedom of others; as the group develops, this function will be assumed by the entire group.

- 3) encourage the expression of feedback. Feedback is one of the basic determinants of change in the group situation. It should be accurate, as close in time to the behavior as possible, based entirely on what occurs within the group, and from many sources and of different types.

Initial feedback will come from you and should fit most of the above requirements. As the desirable group atmosphere (1) develops, group members will begin to generate their own feedback and they will begin to inform each other as to how their behavior is seen and interpreted. Such feedback may create anxiety in some of the group members but if they feel the climate is one of safety, such anxiety can be highly beneficial in producing growth.

Your task is to see that feedback occurs within this climate of safety and is not overly threatening, especially to weak members. As well, you should restrict feedback to material within the group so that such material is open to reality testing by the entire group.

- 4) serve as a model of effective group behavior. You will attempt to exhibit all the group behaviors which are considered desirable. As much as possible, you should express feelings and attitudes openly and freely, accept feedback (including feelings of hostility and frustration) openly and without becoming defensive, be a model of trust and acceptance toward others, lend strong support to the expression of feelings in others, limit your expressions to material within the present context of the group (here-and-now orientation), and freely interact with all group members in a close and sharing manner.
- 5) draw the attention of the group to the here-and-now focus. This does not mean that, as a facilitator, you actively direct all material to this area, but you should indicate the advantages of the here-and-now orientation and frequently interpret to the group their current level of operation.
- 6) finally, encourage mutual group interaction, communication, and personal sharing. Members should be encouraged to participate as freely as possible in whatever way they can or wish. Often the group will tend to interact only with the trainer. In this situation they need to be shown what they are doing and the trainer may directly suggest that "John, tell Bill what you are telling me."

Concluding Points

- Remember that almost everyone initially lacks interpersonal competence; members of your group will tend to have distorted self-images, faulty perceptions, and poor communication skills.
- Anxiety in group members is natural in this novel situation and indeed, moderate anxiety facilitates new learning.
- Don't be overly concerned about the development of a safe and free atmosphere in the group. Even groups of complete strangers can achieve this effect in a relatively short space of time, with trainer assistance of course.
- Everything you do serves as a model for the group to imitate . . . but they don't expect you to be infallible. If you feel uncomfortable about something in the group, share this feeling with the members because they will sense your discomfort.
- When you intervene in the group, for whatever purpose or reason, try to draw attention to the behavior of the entire group rather than always to a single member.
- Finally, don't appear too skillful; you are specially trained and you serve a special function, but you are also a member of the group.

APPENDIX D

CONSENT TO PARTICIPATE IN
VIDEOTAPED GROUP SESSIONS

I hereby consent to participate in twice-weekly group sessions at Alberta Vocational Centre during November and December, 1968.

It is my understanding that all sessions will be recorded on videotape and that the purpose of this is to help evaluate the usefulness of the group sessions.

I further understand that I will be given the opportunity to see some of these videotapes.

All videotapes will be erased at the final completion of the project and there will be no permanent audiovisual record of the group.

Date

Signature

APPENDIX E

AVC PROJECT SCHEDULE

DAY 1	Segment 1 Break Segment 2 Break Segment 3	DAY 8	Segment 20 Break Segment 21 Break <u>Segment 22</u>
DAY 2	Segment 4 Break Segment 5 Break <u>Segment 6</u>		GSD4
	GSD1	DAY 9	Segment 23 Break Segment 24 Break Segment 25
DAY 3	Segment 7 Break Segment 8 Break Segment 9	DAY 10	Segment 26 Break Segment 27 Break Segment 28
DAY 4	Segment 10 Break Segment 11 Break <u>Segment 12</u>		<hr/> <hr/>
	GSD2		
DAY 5	Segment 13 Break Segment 14 Break Segment 15		
DAY 6	10 min. VTR (of segment 15) Segment 16 Break 10 min. VTR (of segment 16) <u>Segment 17</u>		
	GSD3		
DAY 7	10 min. VTR (of segment 17) Segment 18 Break Segment 19		

APPENDIX F

JUDGES' MANUAL
for
VERBAL CONTENT ANALYSIS

ROGER D. MARTIN
FEBRUARY 1969

INTRODUCTION

For content analysis to be meaningful it must be accurate and reliable. It is important that several different persons be able to rate the same material and produce similar results. To this purpose, you should become thoroughly familiar with the category descriptions in this manual so that your decisions are spontaneous and consistent. All decisions must be made on the basis of instructions and examples provided in this manual. When in doubt, refer to the guide.

CONTENT CATEGORIES

There are really only two decisions to be made about each verbal excerpt: material is classified as "Here-and-now" or as "There-and-then." The few excerpts which cannot be classified under these two categories are labelled as "Unclassifiable."

"HERE-AND-NOW" CATEGORY

General Definition: These are any references to the present group or to members of that group. Included in this category are references to things that have happened in this group in past sessions as well as references to group members who are not present. Also appropriate are any self-verbalizations including the group, or not involving the group but expressing a current, on-going, personal feeling. Finally, this category includes commands, isolated statements of agreement and/or disagreement, and questions addressed to other group members.

Each of these types of verbalization are described separately below and examples are provided for guidance and clarification.

1. Speaking about the group in general, or about a specific member who is present.

- As for my role in the thing, I'll still be a member of the group.
- The first time I ever seen Wilbert was at a race.

EXAMPLES

- I wanted to see how you people react to these ...
- Someone mentioned the word communication and it really threw it there.

2. Speaking directly to another group member, asking them a question, asking for clarification or elaboration. Generally, the name of the addressee should be included unless this direct person-to-person communication is evident from previous context.

-Okay Peter.

-Uh, I was baiting you.

-Well Anne said she felt uncomfortable with me, didn't you?

EXAMPLES

-Is that right?

-You mean . . .?

-Hey? (or Pardon?)

-What have you tried to do about it?

3. Commands which imply "You do it."

-Come on in. (You come on in.)

EXAMPLES

-Go ahead and say it. (You go ahead and say it.)

4. Talking about things that have happened in the group in the past.

-We all were I think.

-Not only me brought that up. You also did bring that up too.

-Well I noticed in the picture I was kinda getting restless, y'know.

EXAMPLES

-I was coming down . . . I was trying to think of what went on last time.

-Well she (Anne) did so I just listened.

-We were trying to discuss something and talk about how, uh . . .

-Often I'd look forward to coming and sometimes I'd just dread it.

-How did you react to hearing yourself?

5. Talking about group members who are not present at that time.

-And uh, Ron walked away with the most hurt look on his face.

EXAMPLES

-Uh, I think that it may well be that John's impressions of what we--or expectations were far different than what really happened.

6. Group members talking about themselves in the present tense although not involving the group but expressing a current, on-going, "now" feeling.

-And I'm quite satisfied. I'm happy.

-I'm sorry.

EXAMPLES

-I'll probably bash him one (John). I feel frustrated enough.

7. Statements standing by themselves and giving agreement or disagreement. These statements imply, "I heard what you just said and I follow you (or differ with you)."

-I know. (but not "I don't know" see unclass.)

-Yeah, right, right. (or "That's right" or "Oh yes")

EXAMPLES

-Mm hmm. (or "Um hmm" or "Uh huh")

-Oh no. No, no, I . . .

-Well I suppose. (or "I guess so" or "I wonder")

-I know, but . . .

"THERE-AND-THEN" CATEGORY

General Definition: These are any references to topics outside the group (i.e. not involving group members). References may be to external places, people, events, things, and actions not in any way connected with this present group. The speaker himself may have been involved in the reference but there is no link to this group. References to the self but not expressing current on-going feelings also belong in this category.

1. Speaking about a definitely external topic or reference.

-What's become of this, they started a group down there at All Saint's Cathedral there?

-That's called a line segment.

EXAMPLES

- The laws of nature, you know, you cannot change.
- That woman in B.C. . . .
- Well Simpsons Sears is like that.

2. References to an external topic which involves the person speaking.

-I have always sat at the front of the class usually.

-But we didn't know any lawyer.

EXAMPLES

-Yeah, I had her in grade nine too and, I don't know.

-I had had polio and I went to see a doctor.

-Um, well, Mom and Dad always wanted me to finish school, and uh, I quit when I was 16.

3. References to a "generalized other", a vague person or group which could include everyone and/or anyone. No definite specification.

-I think that probably some people are very interesting to talk to--to listen to.

-I think you get far away from the subject eventually.

EXAMPLES

-You appreciate it more if you get it I guess.

-And you're all jigsawed . . . blocked up and . . .

-If you don't have money, you've had it.

4. A group member talking about himself but in a general manner and without expressing any present, "now" feeling (contrast with #6 under "here-and-now").

-I got a lot of ideas.

EXAMPLES

-I'm gonna quit reading.

-I've been across Canada four times.

5. References to a vague concept, idea, or ideal.

- Ah yes, . . . just quiet conversation.
- Getting to respond or something.
- It's there, it's there.

EXAMPLES

- Well, uh, uh, . . . listening carefully. Uh, . . .
- It's mechanical.
- Money does not . . .
- It seems to me . . .

UNCLASSIFIABLE

There will be some material which simply will not be appropriate for either of the above two categories. These are incomplete verbalizations with no clear reference or obvious topic or noun. It is unlikely that there will be a great number of these.

- But uh, course for uh, . . .
- What uh, . . .
- . . . and was uh, . . .

EXAMPLES

- But uh, . . .
- These . . .
- INDISTINCT (this appears where audio was poor)
- And I don't know. (this excerpt gives no information as to the possible classification of the material. It could mean agreement, disagreement, or merely a vague comment like "Well, . . .").

COMBINATION

Although there are really only two categories to be concerned with, some references will be so long that they will contain both types of material. In these cases you are to judge the excerpt as H-T if a "here-and-now" reference precedes a "there-and-then" reference. Conversely, if a "there-and-then" reference is followed by a "here-and-now" reference it is judged T-H.

1. Here-and-now followed by there-and-then.

-Well the thing is like, . . . Jim, you're saying degrade (H). I can, I can remember back, I mean I was never there but it's written in history that uh, the Romans, mind you the Romans were supposedly degenerates you know . . . (T)

EXAMPLES

-He thinks he (Ron) knows so much about society. Talking there about society a few times which I told him he doesn't know nothing about society, which he doesn't. All he reads out of a book. (H) But you gotta get out and learn, talk to people, talk to different people, different nations, talk to different nations and . . . (T)

2. There-and-then followed by here-and-now.

-Well I was never close to my father. My mother died when I was six and uh, this has something to do with . . . (T) like Edith was saying, uh, like . . . (H)

EXAMPLES

-I asked Roger (T) before you came in (H).

A FINAL EXPLANATION

There are several terms which people tend to employ at the beginning of a sentence but which contribute little to a classification such as we have here. If these terms occur at the beginning of an excerpt, ignore them and judge the excerpt on the remaining material available. If these appear by themselves, judge them as unclassifiable.

-I think, _____

-I mean, _____

EXAMPLES

-Y' see, _____

-You know, _____, you know.

APPENDIX G

INSTRUCTION SHEET

The purpose of this task is to measure how you see the various members of your group at this time. You are asked to describe what each person is like by checking where you feel he or she fits on each of the 18 scales.

Each scale has 7 points. If you circle 1 or 7 this means that you feel the person you are describing is very much like the first or the last word. If you circle number 2 or number 6 this means that the person is somewhat like one of the terms. If you circle 3 or 5 this means that the person is only slightly like one of the terms. Finally, if you circle 4, this means you feel that neither of the words describes this person, or that both words describe him equally well, or that both words seem unimportant or irrelevant for this person.

As an example, the following 5 scales would mean that John has been described as: very fair; somewhat lenient; both calm and excitable or neither calm nor excitable; slightly dangerous; and neither foolish nor wise or both foolish and wise.

1. fair	<u>1</u>	2	3	4	5	6	7	unfair
2. severe	1	2	3	4	5	<u>6</u>	7	lenient
3. calm	1	2	3	<u>4</u>	5	6	7	excitable
4. dangerous	1	2	<u>3</u>	4	5	6	7	safe
5. foolish	1	2	3	<u>4</u>	5	6	7	wise

Before you continue, make sure you have filled in your name on the line below. Work at a fairly high speed as you describe each person in the group. You should take about 15 minutes to describe all group members, including yourself. Do not puzzle over individual items but make each item a separate and independent judgment.

It is your first impressions, your immediate feelings that we want. On the other hand, please do not be careless because we want your true impressions.

YOUR NAME: _____

Describe what _____ is like in this group.

1. insensitive 1 2 3 4 5 6 7 sensitive

2. strong 1 2 3 4 5 6 7 weak

3. close 1 2 3 4 5 6 7 distant

4. bad 1 2 3 4 5 6 7 good

5. cool 1 2 3 4 5 6 7 warm

6. silent 1 2 3 4 5 6 7 talkative

7. excluded 1 2 3 4 5 6 7 included

8. active 1 2 3 4 5 6 7 passive

9. hard 1 2 3 4 5 6 7 soft

10. important 1 2 3 4 5 6 7 unimportant

11. follows 1 2 3 4 5 6 7 leads

12. involved 1 2 3 4 5 6 7 withdrawn

13. discordant 1 2 3 4 5 6 7 harmonious

14. friendly 1 2 3 4 5 6 7 unfriendly

15. central 1 2 3 4 5 6 7 peripheral

16. dependent 1 2 3 4 5 6 7 independent

17. adaptable 1 2 3 4 5 6 7 rigid

18. accepted 1 2 3 4 5 6 7 rejected

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